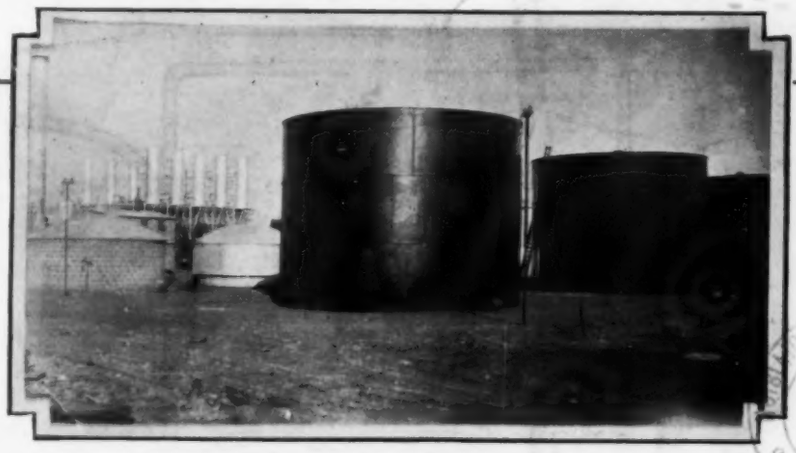
The OIL WEEKLY

10¢ A COPY

April 16, 1926 Volume 41. No. 4

MADE OF KEYSTONE COPPER STEEL



MADE OF KEYSTONE COPPER STEEL

AMARILLO REFINING COMPANY

at Amarillo, Texas, is one of many prominent users of MALONEY Tanks in the great Amarillo oil district. The above photo shows three 3000-barrel Maloneys being used by this company for gasoline storage.

MALONEY Tanks are coming into wide use for gasoline storage, as producers and refiners have found that the Maloney patented offset construction at seams and joints combines with our method of reinforcing seams and with our special gasketing and cement to produce a tank that is absolutely leak-proof and gas-tight.

"Alone in Quality"

MALONEY TANK MFG. CO.

TULSA, OKLAHOMA

Distributors at all Principal Petroleum Points

"BUCK" TYPE VACUUM-PRESSURE VALVES AND VACUUM BREAKERS FURNISHED

Sizes: 12 to 3,000 Barrels

Packed in Steel-Bound Crates for Export

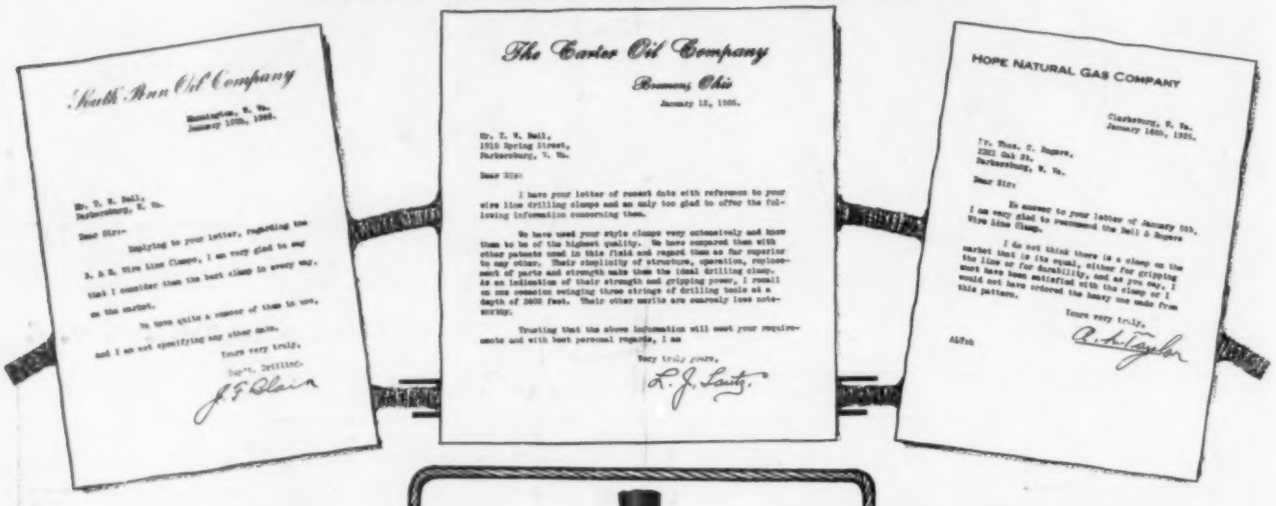
MALONEY

MALONEY PATENTED BOLTED COPPER-STEEL TANKS

THE B & R WIRE LINE DRILLING CLAMP

This new member of the ACME family of Drilling and Fishing Tools was formerly manufactured by CARTER OIL CO.

Here's What They Say About It—



South Penn Oil Company

Huntington, W. Va.
January 10th, 1925.

Mr. T. W. Bell,
Parkersburg, W. Va.

Dear Sir:-

Replying to your letter, regarding the B. & R. Wire Line Clamps, I am very glad to say that I consider them the best clamp in every way on the market.

We have quite a number of them in use, and I am not specifying any other make.

Yours very truly,

Supt. Drilling.

J. F. Blair

The Carter Oil Company

Bowerston, Ohio

January 12, 1925.

Mr. T. W. Bell,
1910 Spring Street,
Parkersburg, W. Va.

Dear Sir:

I have your letter of recent date with reference to your wire line drilling clamps and am only too glad to offer the following information concerning them.

We have used your style clamps very extensively and know them to be of the highest quality. We have compared them with other patents used in this field and regard them as far superior to any other. Their simplicity of structure, operation, replacement of parts and strength make them the ideal drilling clamp. As an indication of their strength and gripping power, I recall on one occasion swinging three strings of drilling tools at a depth of 3600 feet. Their other merits are scarcely less noteworthy.

Trusting that the above information will meet your requirements and with best personal regards, I am

Very truly yours,

L. J. Lauty.

HOPE NATURAL GAS COMPANY

Clarksburg, W. Va.
January 14th, 1925.

Mr. Thos. C. Rogers,
2301 Oak St.,
Parkersburg, W. Va.

Dear Sir:

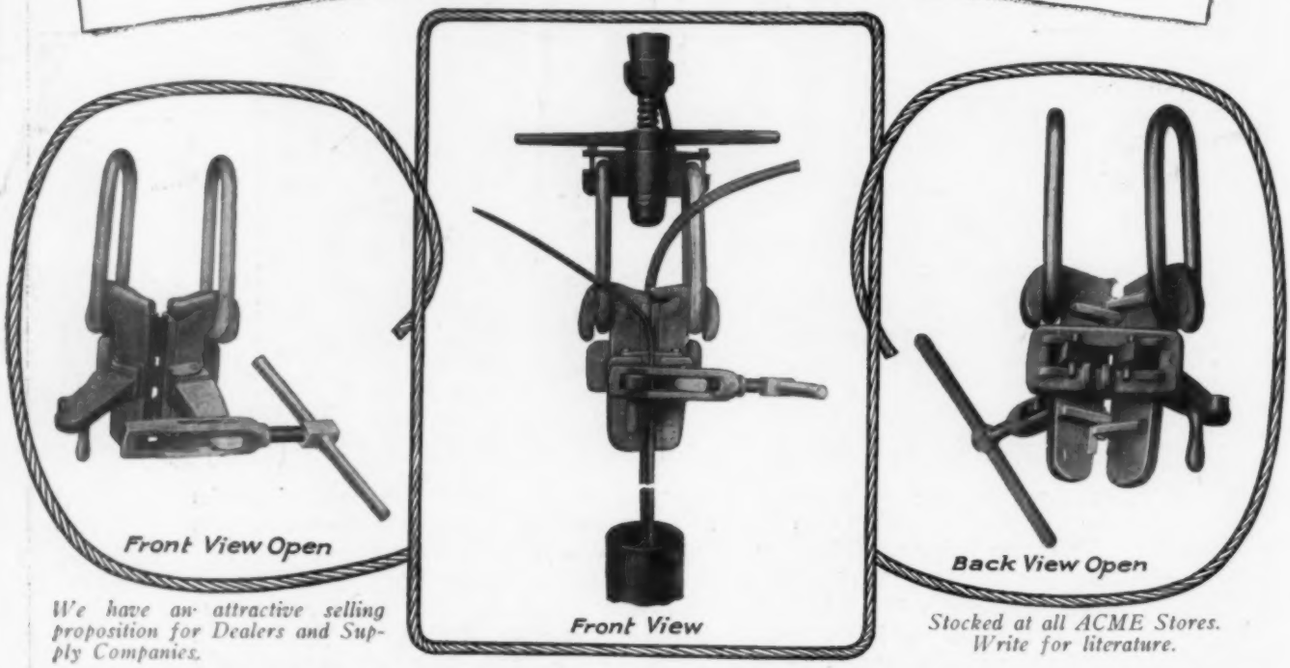
In answer to your letter of January 6th, I am very glad to recommend the Bell & Rogers Wire Line Clamp.

I do not think there is a clamp on the market that is its equal, either for gripping the line or for durability, and as you say, I don't have been satisfied with the clamp or I would not have ordered the heavy one made from this pattern.

Yours very truly,

A. A. Taylor

ALT:th



Front View Open

Front View

Back View Open

We have an attractive selling proposition for Dealers and Supply Companies.

Stocked at all ACME Stores. Write for literature.

The greatest possible gripping power has been secured in the design of this clamp, yet it is much lighter than ordinary clamps and, while it will drill to 6000 feet with safety, its lightness permits it to be easily handled on a drilling machine for shallow wells.

It has the least number of parts of any clamp manufactured. It is so simple and strongly built that it is practically impossible to injure it, no matter how roughly it is handled. The slips can be quickly changed and are made of extra heavy material which permits a deep groove for the cable, thus protecting the line and giving both liners and cable a much longer life.

The Slip Retainers, which are really an additional set of Slips, make it possible to grip the sand line and cable at the same time. This is a valuable time-saver when it is desired to run a bumper to knock the tools loose. These slips are also handy when it is desired to hitch onto the sand line to jerk the bailer loose.

The B. & R. Clamps are popular in every oil field where they have been given a trial. They are now in the stocks of every ACME Store and Warehouse. Consider this evidence from experienced operators who have thoroughly tested our claim, that an ACME B. & R. WIRE LINE CLAMP is "the simplest Clamp with the greatest gripping power."

PRICE $65.00

F. O. B. Parkersburg, W. Va.

ACME FISHING TOOL CO.

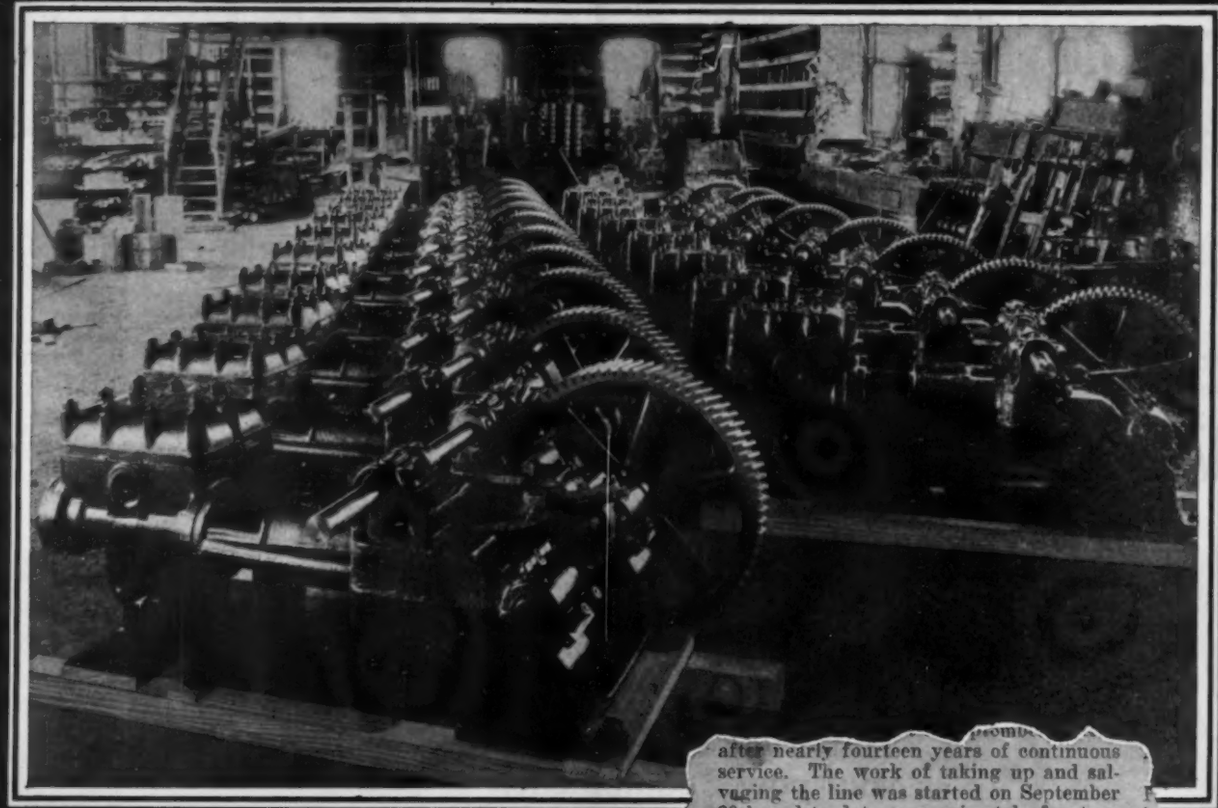
Parkersburg, West Virginia.

Export Office: 136 Liberty St., New York City, N.Y.

Warehouses and Distributors

Midland Iron Works—Billings, Montana.
Great Northern Tool and Supply Co.—Kevin, Montana.
Acme Rental Tool Service Co.—Graham, Texas.
Acme Fishing Tool Co. of Texas—Vernon, Texas.
Acme Tool Company—Cross Plains, Texas.
Brown Welding and Machine Co.—Breckenridge, Texas.
Elms Bros. & Co.—Waynesburg, Pa.
Acme Fishing Tool Co.—Tulsa, Oklahoma.
Acme Fishing Tool Co.—Okmulgee, Oklahoma.
Logan Foundry and Machine Co. Logan, Ohio.

The OIL WEEKLY. Issued weekly by the Gulf Publishing Co., 1716 Dallas Ave., Houston, Texas. Subscription price $1.00 per year; 10 cents per copy. Entered as second-class mail matter December 23, 1916, at the post office at Houston, Texas, under act of March 3, 1879



PART OF A BIG ORDER OF GASO NO. 508 PUMPS READY FOR SHIPMENT TO MIDWEST REFINING COMPANY, SALT CREEK, WYOMING

"OUR BIGGEST WORK AT DURING THE YEAR HAS BEEN THE ADOPTION OF— ELECTRIC POWER PUMPS"

READ THE CLIPPING FROM MIDWEST REVIEW'S ARTICLE BY G. M. VANDAVEER, GENERAL SUPERINTENDENT OF PIPE LINES. 109 NEW PUMPS WERE INSTALLED. ALL WERE GASOS!

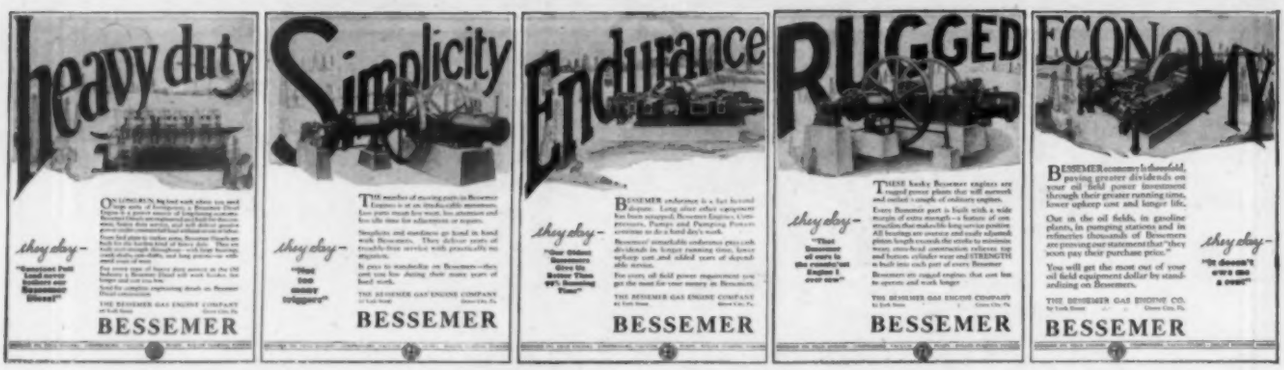
GASO PUMP & BURNER MFG. CO.
TULSA, OKLA.

after nearly fourteen years of continuous service. The work of taking up and salvaging the line was started on September 29th and to date, approximately fourteen miles has been removed and either sold or is awaiting use again in other parts of the field. The work of taking up the line is now practically at a standstill due to weather conditions [illegible] resumed again in the early spring.

By far our biggest work at Salt Creek during the year has been the adoption of electric power pumps to take the place of steam and gas engine driven pumps. The [illegible] going on since the early part of the year and at the present time, we have one hundred and fifty-five of these pumps installed. One hundred and nine of these are new pumps, made by the Gaso Pump and Burner Mfg. Co., and are gear driven by 25 HP, three phase, constant speed induction motors made by the General Electric Company. The balance of forty-six pumps are old steam and gas engine power pumps which have been converted for use with electric motor drive. Electric power pumps have proven better in every way than the steam or gas engine pumps, as they require less attention, are more economical in operation and, being driven by constant speed motors, do not run the risk of tearing themselves to pieces if they loose suction while the operator is away from the pump building.

During the year, we laid in the Salt Creek field, 54,943 feet of various sizes of water line, 180,123 feet of oil gathering line and during the same period, took up 104,973 feet of oil gathering lines. At the present time, our Salt Creek-Casper trunk lines consist of three main lines, each of [illegible]

Say you saw it in The OIL WEEKLY



What makes a man valuable to you?

AREN'T these the things that you appreciate most?—*loyalty—dependability—proven ability to get things done right without requiring constant attention and nursing—reserve strength and power equal to emergencies.*

You want exactly the same characteristics in your power equipment!

Bessemer equipment is planned, designed and built with this goal in mind—to produce equipment which not only renders faithful, care-free service around the calendar under routine conditions but stands the gaff of the emergency just as successfully.

No single part is approved on preliminary blueprints or in the final inspection unless it allows for the hardest test it can face under practical operating conditions out in the field. The extra margin of performance — the safety factor so vitally necessary to you—is built into it before it leaves the factory.

THE BESSEMER GAS ENGINE CO.
62 York Street ∴ ∴ Grove City, Pa.

BESSEMER

BESSEMER OIL FIELD ENGINES – COMPRESSORS – VACUUM PUMPS – ROLLER PUMPING POWERS

THE BESSEMER GAS ENGINE COMPANY

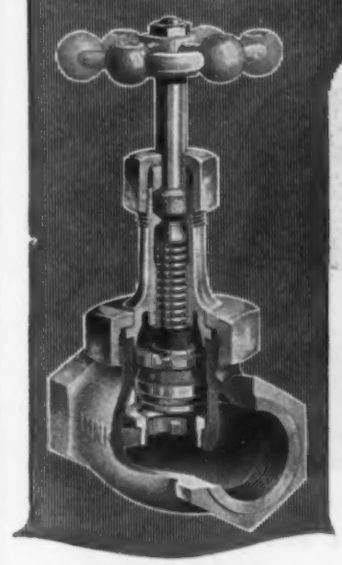
Keep down the cost of upkeep!

Minimum Maintenance Expense Insures Maximum Economy

"Economy" is the watchword of industry these days, and anything which makes it possible to reduce costs is of vital interest to the men responsible for maintaining production schedules.

In the power plant, discriminating users are no longer buying just valves; they are buying a definite valve service—continuous satisfactory performance over long periods of time, freedom from frequent costly repairs and replacements, and convenient sources of supply to insure prompt deliveries.

LUNKENHEIMER "FERRENEWO" AND "RENEWO" VALVES



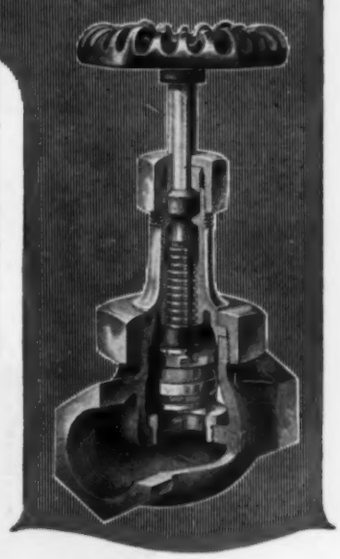
Iron Body "Ferrenewo"
150 lb. W. S. P.
Union Bonnet Type ¼ to 2 in.
Outside Screw and Yoke Type
2½, 3 and 4 in.

embody all the necessary factors to meet the requirements of the most critical purchaser of equipment.

The Iron Body "Ferrenewo" for the lower pressures, and the Bronze "Renewo" for the higher pressures provide an ideal combination upon which an ever increasing number of plants are advantageously standardizing.

They are of the same design, with regrindable seating surfaces. When worn beyond repair the nickel seats and discs can easily be renewed. All other parts of the valves are likewise renewable. Seat faces can be reground and parts renewed without removing the valves from pipe lines.

In sizes ¼" to 2" inclusive, union bonnet types, all parts of the "Ferrenewo" and medium "Renewo" are interchangeable, with the exception of the bodies and bonnet rings. This feature makes it unnecessary to carry a wide assortment of replacement parts, reduces stock-room investment and simplifies ordering and handling.



Bronze "Renewo"
Medium, 200 lb. W. S. P.
Extra Heavy, 300 lb. W. S. P.
Union Bonnet Type ¼ to 3 in.
Outside Screw and Yoke Type
1½, 2, 2½ and 3 in.

Lunkenheimer Distributors, located in all commercial centers, carry complete stocks and render prompt service. They will be glad to explain in detail the service features of the "Ferrenewo" and "Renewo" combination.

THE LUNKENHEIMER CO.
"QUALITY"
CINCINNATI, OHIO, U. S. A.
NEW YORK CHICAGO BOSTON LONDON
EXPORT DEPT. 129-135 LAFAYETTE ST., NEW YORK

The "Guide to Better Service" shows in convenient form an ideal selection of Valves and Engineering Appliances. The center pages illustrate the application of Lunkenheimer Boiler Mountings conforming to the A. S. M. E. Code. Fill in and mail the attached coupon and a copy will be sent without obligation.

Fill in and mail this coupon for your "Guide to Better Service"

THE LUNKENHEIMER CO. "QUALITY" P. O. Box 876, Cincinnati, Ohio

Please send me a copy of Lunkenheimer "Guide to Better Service." JK

Name .....

Firm .....

Address .....

102-39-90

Tons that Hang on a few small Threads

NOT alone the weight of all the casing in the string but also tons and tons of friction load exerting a tremendous pull on top threads—such is the great burden that LaBelle Casing and Tubing is made to carry with eminent success.

Uniform physical structure in the steel means uniform strength, better, clean-cut threads; each thread of casing and coupling equal to its share of the load.

The quality that LaBelle Oil Country Goods have proved in the past—and continue to prove—is indisputable reason for their constantly growing preference in the field, and reason why you should use La Belle.

"From Mine to Market"

Casing and Tubing
WITH STEEL COUPLINGS

LA BELLE

WHEELING STEEL CORPORATION, WHEELING, W. VA.

THIS TRADE-MARK

MEANS:

Prompt, efficient and dependable service to refiners on the following products:

Metric Meters, for every measuring purpose.
Westcott & Greis Tank Equipment.
G. M. Davis Regulators.
Chaplin-Fulton Regulators.
Crosby Steam Gauges.
Meriam Products.
Bristol's Charts and Recording Gauges.
McDonald 2-lt. 3-diaphragm Meters.
Kreb's Levelling Saddles.
Complete stock of orifice meter repair and replacement parts.
Reliance Regulators.

WESTCOTT & GREIS, INC.

Dallas TULSA Los Angeles

Westcott & Greis maintain a corps of able and efficient engineers who are capable of handling your measurement and control problems to your complete satisfaction. A line to us will place you under no obligation and will prove decidely beneficial in profitable results.

Regan Pipe Suspension

Feature No. 1

Space Conservation

The compact construction of the Regan Head enables the operator to drill and complete his well, using the least possible space under the derrick floor—and in addition making a solid unit of the various casing strings involved.

Regan

Forge & Engineering Co.

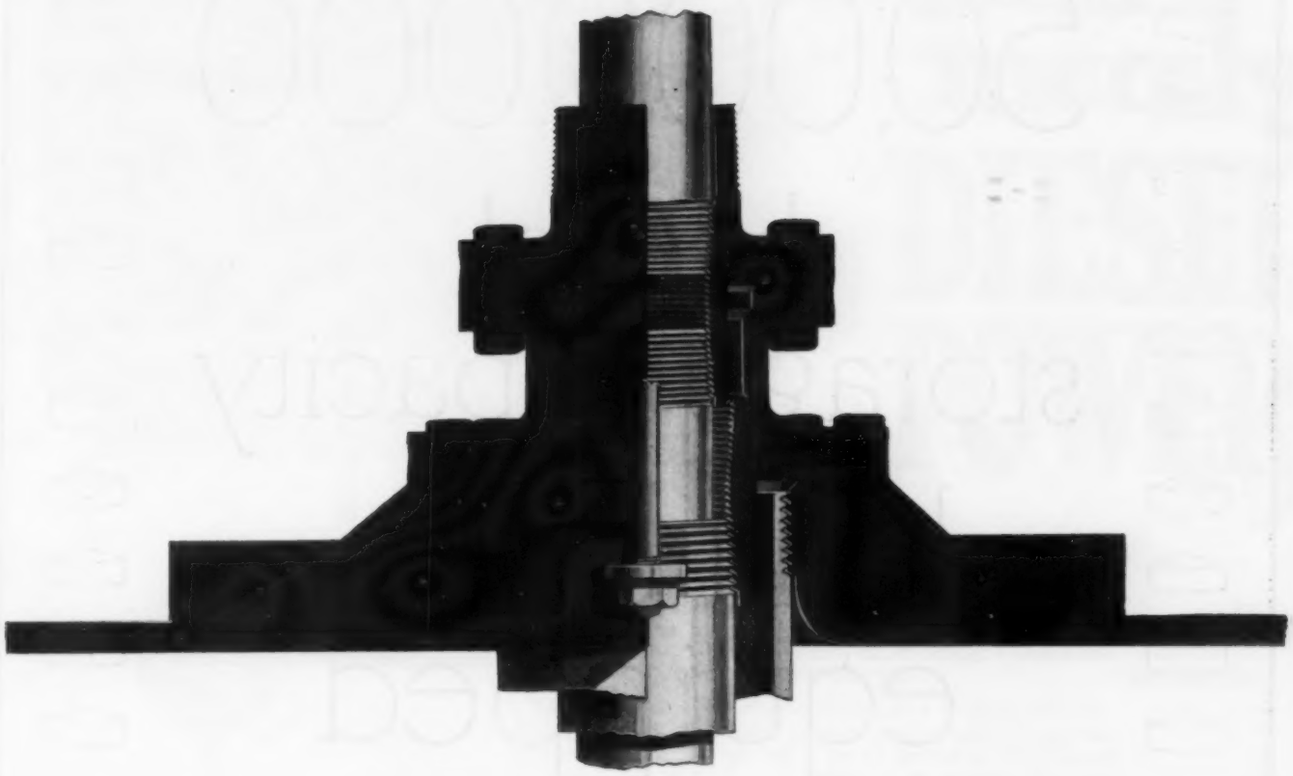
San Pedro California

Quality — Wrought on the Forge of Experience

Designers and Manufacturers

Say you saw it in The OIL WEEKLY

and Control Head



Lew D. Hilton, who is in charge of our Mid-Continent office at Houston, has had a wealth of experience in directing oil drilling production and has for many years been recognized as especially qualified on control work. His services or his advice are at your command without charge. Call on him.

Main Office and Plant:
Los Angeles Harbor
San Pedro, Calif.

Houston, Texas.
Regan Sales Co.
1521 Post-Dispatch Bldg.
Main Office Mid-Continent Field

Tulsa, Okla.
405 West First St.

New York.
Woolworth Building,
Exports.

of Quality Oil Well Equipment

Say you saw it in The OIL WEEKLY

Over 50,000,000 barrel storage capacity has been equipped with JOHNS-MANVILLE Vapor Tight Insulated Tank Tops

(Patented, other Patents Pending)

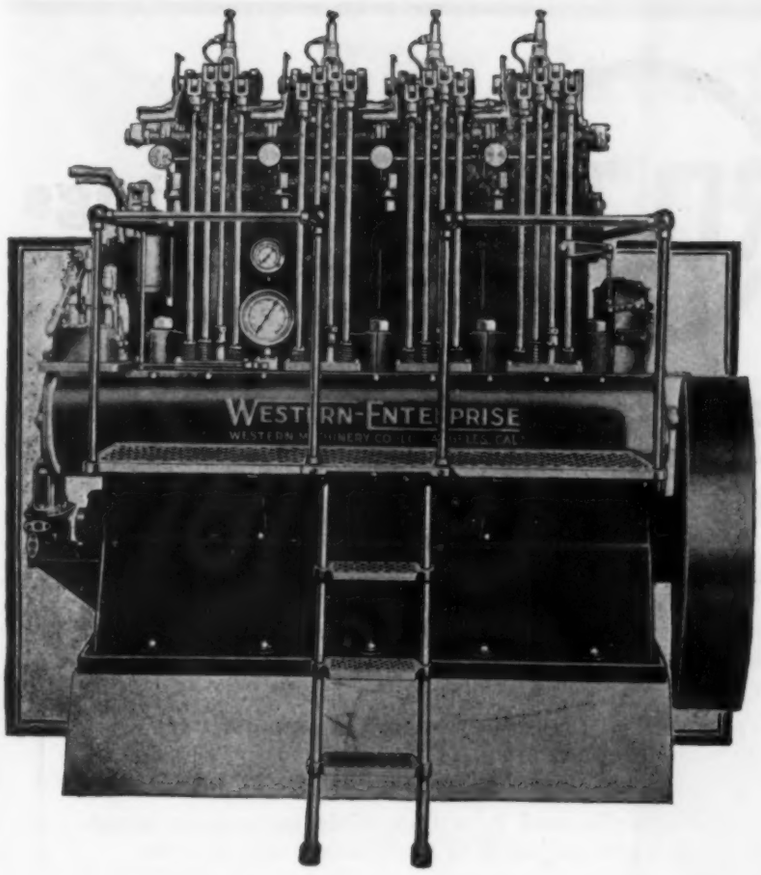
Johns-Manville Oil Industry Dept.

JOHNS-MANVILLE Inc., 292 Madison Avenue at 41st Street, New York City

Branches in 63 Large Cities

For Canada: CANADIAN JOHNS-MANVILLE CO., Ltd., Toronto

Say you saw it in The OIL WEEKLY



more than merely DIESEL POWER

The "Western-Enterprise" Diesel Engine brings more and greater advantages to power users than merely the accepted superiority of Diesel power. Extraordinary simplicity is the outstanding feature which makes it dominant among prime movers of the better class.

"Western-Enterprise" simplicity is a feature of inestimable value in modern power production. It is the development of the highest type of power to its highest state of practical utility. It extends all the way through the engine and its performance, from design and construction to operation and upkeep.

The "Western-Enterprise" Diesel Engine is the logical prime mover for the petroleum industry, and is well adapted to the various power requirements of this service.

Every power user in the Petroleum Industry should have the "Western-Enterprise" catalog No. 505. A copy will be mailed on request.

WESTERN MACHINERY COMPANY

General Office and Factory: 905 North Main Street, Los Angeles, California.

San Francisco Offices and Factory: 18th and Alabama Streets.

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1106 Nineteenth St., Bakersfield, California.

WESTERN-ENTERPRISE

Say you saw it in The OIL WEEKLY

Valves **KEROTEST** Fittings

REGISTERED U. S. PAT. OFF.

The Standard of Quality
Throughout the High Pressure Fields

Kerotests are designed to withstand the most severe operating conditions. The castings are of high grade Ilmenite Electric Steel—machined with precision to jigs and templates assuring absolute uniformity and interchangeability of parts.

Kerosene, because of its greater penetrability than water, is used to search out the most minute flaws in the steel. Before shipment Kerotest products are approved and certified by a disinterested inspection agency.

You want nothing but the best on your wells—and it is impossible for you to secure valves made with greater care and precision and subjected to more severe service tests.

Kerotests assure positive action with perfect and continuous service at all times.

Let us prove it.

Kerotest Manufacturing Company
Pittsburgh, Penna.

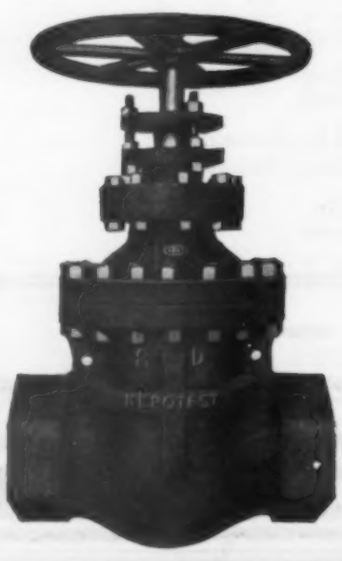
Carried in stock and sold by

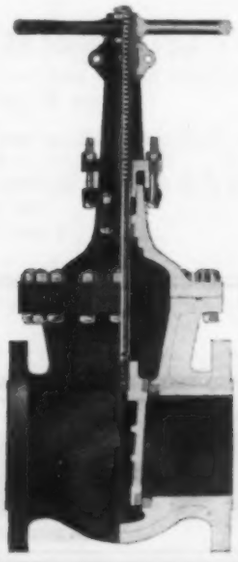
Grinnell Company of the Pacific
Los Angeles San Francisco Oklahoma

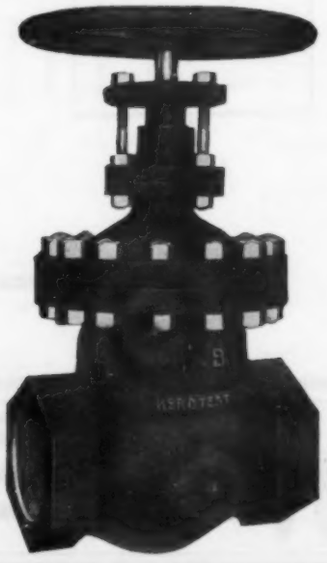
Oil Well Supply Company
Kansas Colorado Wyoming

Norvell-Wilder Hardware Company
Houston Beaumont Shreveport Ft. Worth Pittsburgh

Export Distributors:
Oil Well Supply Company
New York Tampico London







The Safest and Most Satisfactory Drilling Jars Made!

Spang Weldless Drilling Jars have exceptional wearing qualities. Every oil field operator and every driller who has used Spang Jars—will verify this statement.

Spang Weldless Jars are made to meet the most severe service—they're manufactured from a single piece of tough alloy steel, a construction that absolutely eliminates the welds which constantly encourage failures and fractures.

Once you have tried the Spang Weldless Jar—you will use no other.

SPANG AND COMPANY

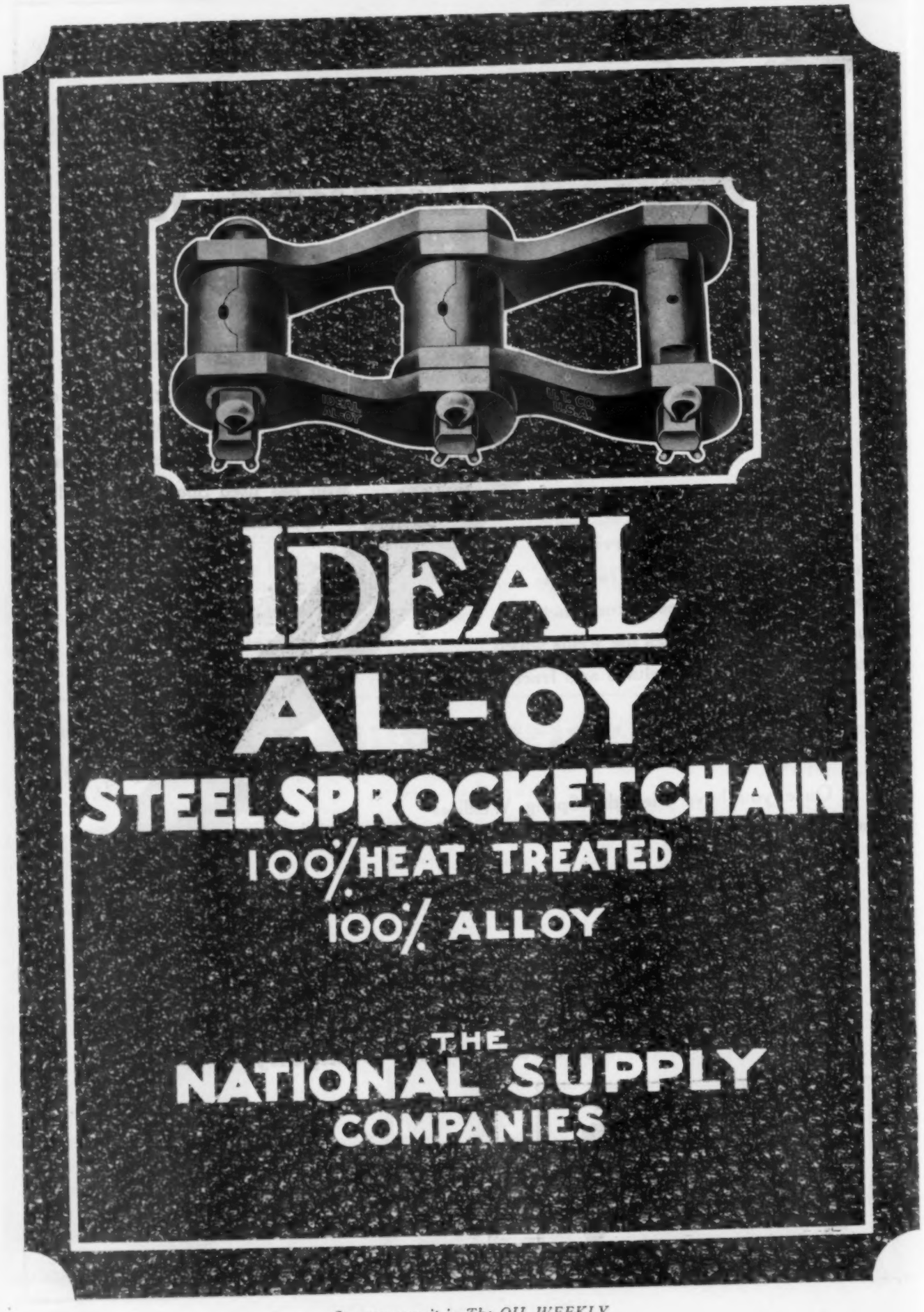
Butler, **Penna.**

Sold By Your Supply Company

Spang Thread Protector

Protect your tool joints with Spang Thread Protectors. Like all Spang products they guarantee absolute satisfaction and long, durable wear.

Over 300 Supply Stores carry complete stocks of Spang Weldless Drilling Jars


IDEAL
AL-OY
STEEL SPROCKET CHAIN
100% HEAT TREATED
100% ALLOY
THE
NATIONAL SUPPLY
COMPANIES

What a Whale of a Difference the Right Steels Make!

One third the pullings—one third the sharpenings—one third the delays. Gosh! what a difference the right steels make. But it's a fact. Any roughneck that ever used bits made of Agathon Alloy Steels will swear to it. And those that haven't will swear, too, if you don't order that next lot of bits made of these super-steels. The small added cost will all be lost in the big savings they'll make for you. Better send for a copy of our Agathon Alloy Steel handbook. If you want metallurgical assistance we'll furnish that, too, without charge.

The Central Steel Company
Massillon, Ohio

Swetland Bldg., Cleveland
Peoples Gas Bldg., Chicago
University Block, Syracuse
Book Building, Detroit
Aeolian Bldg., New York
Widener Bldg., Philadelphia
303 W. P. Story Bldg., Los Angeles, California
404 West First St., Tulsa, Oklahoma

AGATHON ALLOY STEELS

The Standard Collapsible Rotary Drill and Core Barrel

for Efficiency Reliability Rapid Drilling

—The GUESSWORK of resharpening bits in the field, are all eliminated with the Standard Collapsible Rotary Drill and Core Barrel. ?

—Replaceable cutters that have been scientifically heat treated in laboratory furnaces are ALWAYS of uniform tough-hardness—and make the maximum amount of hole.

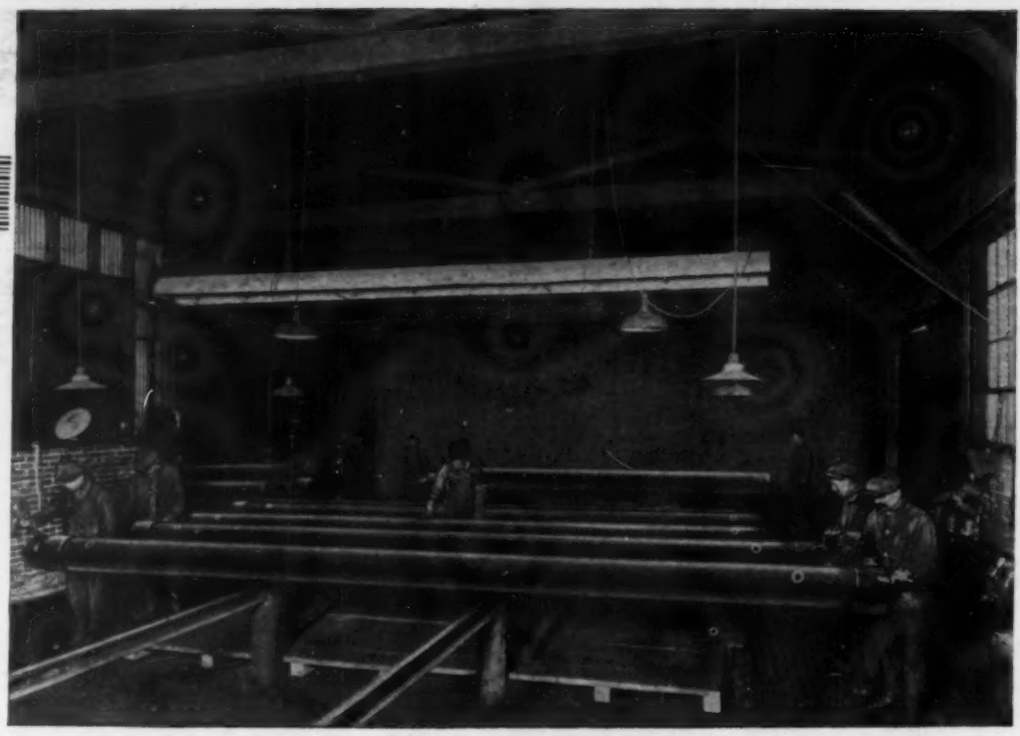
—And they cost no more than blacksmithing ordinary fish tail bits.

Write for Complete Information

O. M. CARTER

W. T. HILTPOLD
SALES AGENT

206-7-8 SCANLAN BLDG.
HOUSTON TEXAS



Not till the inspection is completed and satisfactory, does the Inspector put his O. K. in the White Circle

Inspections That Eliminate Field Trouble

EVERY length of South Chester Pipe—Casing, drive, line or tubing is subjected to the most rigid inspection. Each field thread and each socket is carefully gauged or sized by inspectors with standard size pieces. The entire surface, inside and outside, is gone over after the joint has been weighed and drifted.

Is it any wonder that with such tests, Chester Pipe has met with such a wide and well established approval?

South Chester Tube Company

Chester, Penna.

Pittsburgh New York Houston Tulsa Los Angeles

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W. E. Gibson, 801 Columbia Bank Bldg., Pittsburgh, Pa.

P. N. Guthrie, Jr., 30 Church St., New York City

J. P. Cooney, 909 A. G. Bartlett Bldg., Los Angeles, Calif.

E. H. Bosches, 2108 Mills Street, Houston, Texas

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Petroleum Supply Co., Houston, Texas

Wagner Supply Co., Fort Worth, Texas

United Oil Well Supply Co., 908 A. G. Bartlett Bldg., Los Angeles, Cal.

Hillman Cooney, Inc., 1118 Santa Fe Ave., Los Angeles, Cal.

Midland Iron Works, Billings, Montana

Warehouses at Houston, Texas; Thenard and Taft, Calif.

CHESTER

STEEL CASING

SPECIALISTS IN CASING FOR DEEP WELL DRILLING

Say you saw it in The OIL WEEKLY

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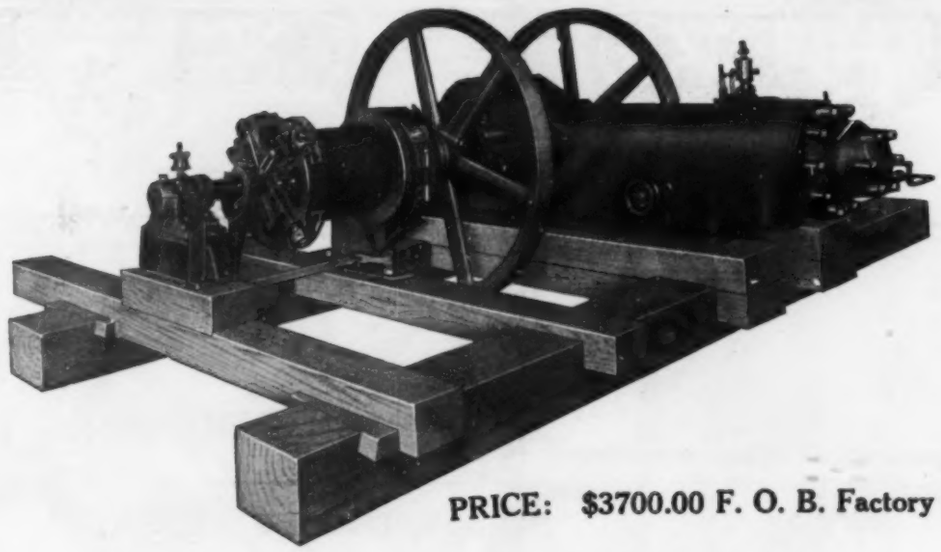

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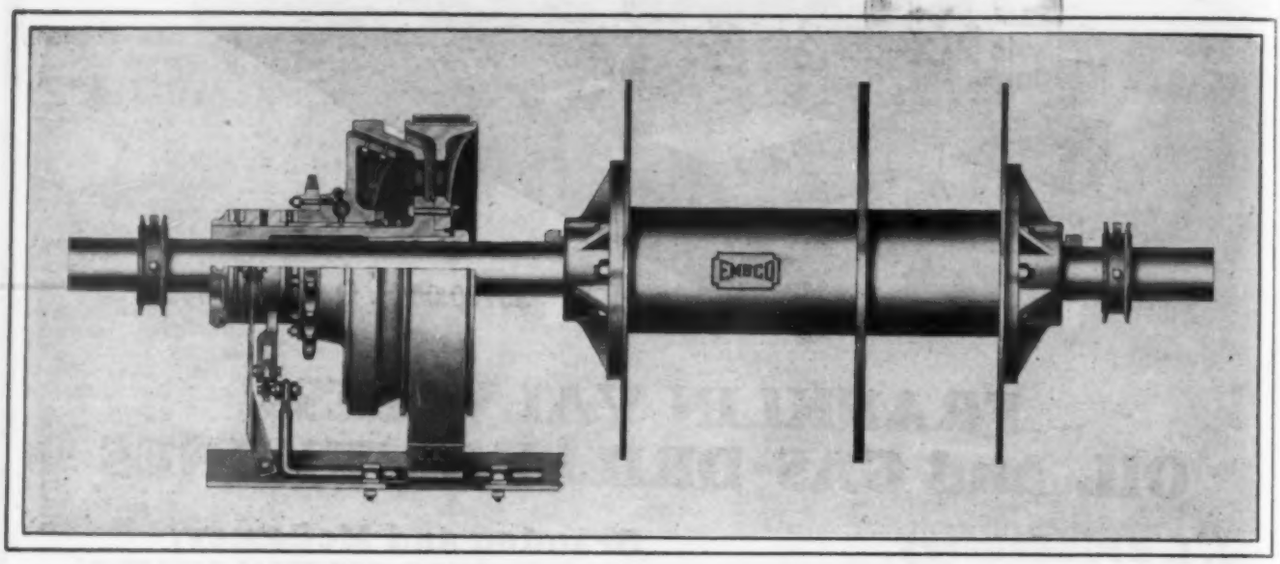

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The field near Campina, Roumania, which is one of the many small pools that has helped to keep this country in the production column.

The OIL WEEKLY

April 16, 1926 **Volume 41, Number 4**

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Published Weekly by GULF PUBLISHING COMPANY, INC.

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R. L. DUDLEY, *President;* A. L. BURNS, *General Manager;* SPENCER W. ROBINSON, *Editor*

Office of Publication: 1716 Dallas Ave., Houston, Texas

NEW YORK: Room 1512 350 Madison Avenue, H. H. Gill, Manager. CHICAGO: 476 First Nat'l Bank Bldg., O. R. Waller, Manager. LOS ANGELES: 1201 Haas Bldg., Wm. V. Gross, Manager. TULSA: 215-16 Atco Bldg., J. F. Carter, Jr., Manager. FORT WORTH: 212 W. T. Waggoner Bldg., H. H. King, Manager. Issued Friday of each week. Single copies 10 cents. Subscription price $1.00 a year. Subscriptions restricted to those engaged in the oil business or the manufacture and distribution of oil field supplies. Advertising rates on application

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Mid-Continent Refiners Show Renewed Confidence in Market

Future of crude market uncertain with all parties concerned apparently pleased

THE price of crude oil has remained stationery for such a long period that little attention is being given it now. In fact it seems to be a situation in which all parties concerned are pleased.

When the crude oil market showed strength late in 1925 and early in this year, frequent predictions were heard that there would be a repetition of a rising price scale in the winter and early spring, with lower prices for the summer. Talk of that has disappeared.

On the contrary, some opinions are prevalent that there will be higher prices in the summer.

Nothing at present, however, can be interpreted as lending evidence to that. The crude oil market is steady.

Refiners Cheerful

With the normal early spring gasoline buying period only a few weeks off. Mid-Continent refiners are beginning to display renewed confidence in market conditions and are shaping their affairs to fill the requirements of the domestic jobbers.

Current gasoline quotations are below the proportionate crude price level, and the first wave of buying will probably result in direct efforts being waged by the plant owners to restore gasoline prices to a normal level with crude costs.

Offerings of the popular domestic grades of gasoline have been reduced lately in view of the refiners' confidence that increased movement of this commodity will be at hand shortly, and many of the plant owners are accumulating stocks for reserve, rather than to accept the prices now available. The U. S. motor grade was selling early this week at 10 cents, while the high test export specification gasoline was netting the refiners 12 cents, or a fraction higher, with Atlantic and Carson doing a little buying for prompt delivery.

Supply of Other Products Off

The curtailment of refinery operations throughout the Mid-Continent in recent weeks, owing to the inactiveness of the gasoline market, has greatly cut down the current supply of fuel oil, kerosene and other heavy oils, while the use of these products for cracking purposes rather than to run high priced crude has also contributed to the rising prices on heavy oils. Fuel was especially active during the past week, and the better grades went above $1.50 per barrel. More than 20,000 barrels of fuel was purchased in North Texas last week by a railroad customer, with prices averaging about $1.50 per barrel at the plants. Heavy oils are being forced to carry the burden for the refiners while gasoline prices are off, but relief for the heavy oil consumers will be had as soon as the spring buying of gasoline gets under way.

The Mid-Continent crude market has not been affected to any noticeable extent by reason of the reduced refinery operations, as major crude buying agencies have taken up all connections turned loose by the independent purchasers at every opportunity, as well as all new connections becoming available. The independent purchasers will be in need of these old connections when the movement of gasoline is revived shortly, and a fresh outbreak of premium offers is inevitable. Premiums are now averaging a dime throughout the leading Mid-Continent refining centers on both contract and spot crude purchases, but a greater premium will be necessary to attract any appreciable quantity of new oil for purchase. The crude market is structurally sound, with no flush production of any consequence in sight, while heavy draughts are being made on reserve stocks by the leading major pipe line concerns in the Mid-Continent. Prevailing prices are proving satisfactory to the majority of the producers, and more interest is being shown by the latter in upholding prices to the present level, rather than to get a temporary boost and stimulate development work to a dangerous level.

Producers in the Texas Panhandle were given a 5-cent boost on each of the five gravity grades posted by three of the purchasers serving the district. The Plains Pipe Line Company, which is one of the older buyers in the Carson-Hutchinson County section of the district, initiated the boost, and the Kay County Gas Company and Magnolia followed one day later. The new schedule nets the Panhandle producers $1.75 for 40 gravity and above.

Texas Light Oil Strong

The light crude market in Texas is emerging from the winter period in an unusually strong position, and competition is at hand in every field. In the Ranger - Breckenridge district and nearby shallow fields, the campaign for new connections is being waged by all the major buyers, and many producing leases are being acquired by the latter in order to build up crude supply for their lines. The Marland Pipe Line Company, which was reported last week as having placed solicitors in this area to buy oil for daily runs, is constructing a field gathering system in Shackelford County to make shipments via tank cars to Texas City tanker terminals. Marland is building 4.2 miles of 6-inch line from a loading rack site on the Katy Railroad to the new Cook pool in Shackelford County to take all oil being produced jointly by Roeser-Pendleton and Marland Oil Company, amounting to a current output of 1100 barrels 40 gravity oil from two shallow flowing wells. Humble built a 6-inch line to this pool, and has been running the oil, since the completion of the first well two months ago, and is also serving the Humble Oil and Refining Company's 440-barrel flowing well in the pool.

Several sales of spot crude have taken place in the Mexia-Corsicana district lately involving a premium of 10 cents per barrel above the posted price. Atlantic Oil Producing Company has purchased about 100,000 barrels of spot crude from Garland Kent, making deliveries via Pure Oil Pipe Line Company's line to Atlantic's export terminals at Atreco, Texas. Simms Oil Company recently sold a tank of crude to a buyer on the Gulf Coast. Major pipe line companies serving the Mexia-Corsicana district are going out of their way to work out exchange deals on crude in other fields as a final resort to increase their runs in this particular section of the state, since no new production is available and the production curve on each of the five fields is pointing downward. However, faint hopes were uncovered early this week when Transcontinental Oil Company's wildcat west of Mexia, on a secondary zone of faulting, cored an oil sand in the Woodbine at 2891 feet, and shut down to cement casing before testing further.

Production Still Changing Hands

While the market for Mid - Continent crude holds firm, the business of adding settled production to property assets continues to hold first place in field affairs.

Several transactions are under consideration at present but progress is not sufficiently advanced to warrant conclusions. From these, however, several small properties are due to pass into the hands of still larger operating concerns.

Price Increase Opens New Interest In Panhandle

Peak production of section not expected for many months

By H. H. King
Staff Representative

Amarillo, Texas.—Crude prices in the Texas Panhandle were advanced five cents per barrel on each of the five separate gravity grades during the past week by the three leading purchasers. The advance does not apply to crude being produced north of the Canadian River in Hutchinson County, where the old price schedule remains in effect owing to the remoteness of this section from field tank farms and tank car loading racks.

The Plains Pipe Line Company posted the increased price quotations effective April 8 along with the announcement of a decision to resume crude purchases in Hutchinson and Carson Counties after having withdrawn November 14, 1925, in favor of the Kay County Gas Company, Marland's crude buying subsidiary in Texas. Both Magnolia and the Kay County Gas Company adopted the higher price schedule on the following day, thereby making the higher crude prices general, except on connections held by the Amarillo Oil Company, which has contracts with producers paying three-fourths of the Mid-Continent gravity scale prices for crude at the well and receiving deliveries via the Pantex Pipe Line Company's six-inch line at Amarillo.

The Plains and Pantex lines were built from the field to Panhandle and Amarillo, respectively, in the fall of 1924, and the former discontinued crude purchases in favor of the Kay County Gas Company last November after receiving an agreement to gather and handle the crude purchased by the Marland subsidiary. The Marland Pipe Line Company is building an eight-inch pipe line from the field to tank car loading rack at Panhandle and eight 55,000-barrel steel tanks, and will be in position to handle all the crude produced and purchased by the Marland Interests next month.

According to an announcement made to Panhandle producers by W. M. Priddy, president of the Plains Pipe Line Company, a deal has been made to sell a large volume of Panhandle crude to a large refinery over a long period. The Plains line will also function as a common carrier for the field, and any producers not desirous of selling their crude can have their crude stored in Plains' tanks, or loaded in tank cars at Panhandle for 20c per barrel gathering and loading charges. All crude located north of the Canadian River in Hutchinson County will be gathered and loaded aboard tank cars at Panhandle for 25c per barrel, according to Priddy.

Growing competition for the high gravity crude being produced in the Panhandle is being followed with great interest by the small producers in the district, as competition among the leading buyers offers the only hopes of prices being forced to a close level with Mid-Continent quotations. Besides the above mentioned crude buying agencies now serving the Panhandle, Gulf is constructing an 8-inch line from North Hutchinson County via the Carson County production to a tank car rack near Panhandle, Texas, and Sinclair Crude Oil Purchasing Company has started a gathering line from the Wilcox field, Gray County, to a car rack at Pampa. Phillips Petroleum Company is expected to announce shortly that a line from its producing properties in Hutchinson County to tank car loading facilities will be constructed to avoid selling production at less than Mid-Continent gravity scale prices.

Although adverse weather conditions have gripped the Texas Panhandle for two weeks, actual field operations in Hutchinson County have been moving swiftly despite the handicap, and at the close of last week a total of 107 active tests were under way, or in process of completion in the county, with rigs and derricks up for 42 tests; 22 locations; and four tests shut down, making a total of 175 operations listed. Since each completed test involves an expense for labor and equipment ranging from $30,000 to $40,000, Hutchinson County must produce a tremendous volume of flush crude to reimburse the operators on their development expense within a reasonable period. Small producers are beginning to appear on completion reports as frequently as the big wells, which range from 500 to 1500 barrels initial. The life of the big flush production is comparatively brief in the areas already subjected to drainage, and in recognition of this lease owners are rushing development work to participate equally with neighbors in the flush oil.

The impending peak production level for Hutchinson County will not be reached for many months, owing to the tremendous area awaiting the drill and length of time required to drill to the pay level at 2800-3100 feet. The peak can be safely estimated under the 100,000 barrel daily level for Hutchinson County, and ample storage and pipe line gathering systems terminating at tank car loading have been secured to meet the situation, except during the cold months when pipe line movement of crude is cut down to a minimum, owing to the congealing quantities of the crude with its paraffin base. Hutchinson County will not average 200 barrels daily per well when the peak is reached, based on past performance of the field, and the average is more than likely to be between 100 and 150 barrels daily per well when the big flood of oil takes place.

Daily average production in Hutchinson County registered a slight decrease during the past week with 6860 barrels daily from 48 pumping, swabbing and flowing wells. These figures do not represent the potential production of present completions, as the three carriers now serving the field are not able to operate within 50 per cent of their line capacity with cold weather prevailing, owing to the oil becoming sluggish and congealing if the temperature is allowed to drop to 50 degrees. The two original lines in the field as well as Magnolia Pipe Line Company's new six-inch line have experienced a great deal of difficulty in keeping the oil moving on extremely cold days, and Magnolia has suffered several breaks in the new line since beginning operations March 17.

The difficulty experienced in moving the crude during the winter months will necessitate a winter storage plan being adopted next winter by all the carriers, otherwise a serious tieup of operations can't be avoided with several hundred completed wells to serve. The carriers plan to move all the oil possible to tank car racks next winter, and have storage facilities close at hand to store the surplus near the wells. No trouble is experienced with the oil during warm weather.

The widespread publicity received in recent months by the Texas Panhandle area has attracted drilling contractors and oil field workers from distant fields, with the result that there is a surplus of both. Many of the drilling contractors have shipped in their outfits without waiting for contracts, and are meeting with disappointment. The majority of the contractors moved in from Oklahoma. Although footage prices on drilling contracts were reduced somewhat early in March by both independent and major companies operating in Hutchinson County, the threat made by several of the latter to cut their scale of prices to a minimum of $3.50 per foot never materialized. Such a price would break the contractors before drilling through the gas horizon, and the oil companies were soon

(Continued on page 32.)

California Fire Destroys Almost Eight Million Barrels of Oil

By William V. Gross
Staff Representative

Los Angeles, Cal.—As a partial result of two fires this week, one at San Luis Obispo and one at Brea, 7,950,000 barrels of oil belonging to the Union Oil Company of California have gone up in smoke, and more than 1,500,000 barrels of stored oil is in grave danger of burning any minute if the flames can not be checked.

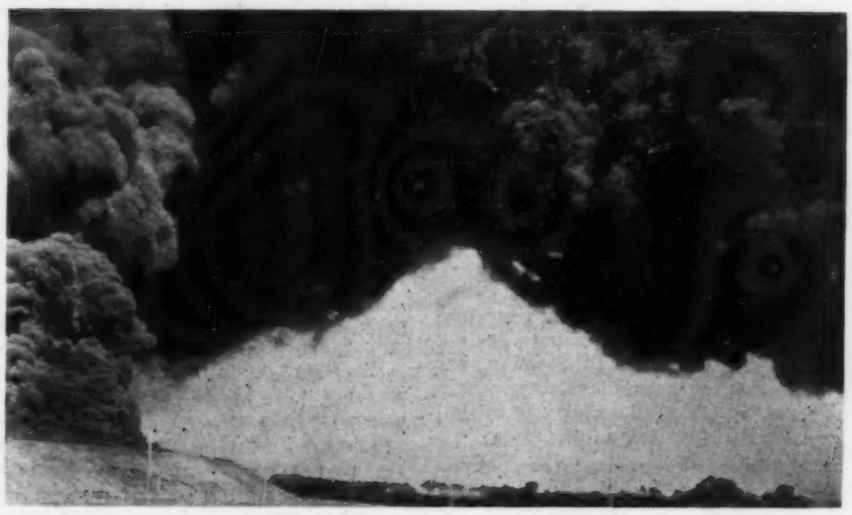
April 8, the Union's 300-acre tank farm at San Luis Obispo was a roaring mass of flames. With the exception of 300,000 barrels of imperiled oil, all the farm's 6,000,000 barrels of stored oil was burning.

The pumping plant on the lease has been completely ravaged by flames which have taken the lives of A. H. Seeber, 81 years of age, and his son, W. F. Seeber. A daughter, Doris Seeber, is in the hospital, following injuries received.

The 5,700,000 barrels of oil destroyed at San Luis Obispo will average from 20 to 21.5 degrees Baume gravity, having a present market value of less than $1.00 per barrel. An estimate of the total damage done can not be made until the flames have died out enough to permit an inspection of the properties.

Shortly after 7 o'clock, April 8, flaming oil poured over the north side of No. 2, a 750,000-barrel reservoir, and swept across the flat land toward a range of hills cutting off the city of San Luis Obispo from the tank farm. Damage to nearby buildings is practically negligible, generous estimates placing it at less than $10,000.

Smoke and fire from one of the Union Oil Company's 720,000 barrel tanks at Brea



Convergence of smoke from two of the Union Oil Company's 750,000 barrel tanks at Brea, Calif.

Co-operation of the citizens of San Luis Obispo, Boy Scouts and oil workers in fighting the fire is responsible, to a large measure, for curbing the ruin to the extent it has been curbed.

Origin of the fire is attributed to lightning.

At Stewart station, near Brea, in Orange County, 2,250,000 barrels of Union oil have burned, and reservoirs Nos. 4 and 5, each containing 750,000 barrels of oil, are seriously threatened. The company's topping plant, which is slightly removed from the scene of the fire, remains uninjured, but part of the refinery, a small one, has been ruined.

When two of the 750's were struck by lightning, there was a deafening explosion which scattered heavy timbers and wreckage for a mile.

More than 3000 men, drawn from the ranks of the Union, the Standard, the Shell and the citizenship of Brea, joined in an effort to save the surrounding country from the flames. In addition to these, 20 wind machines were conscripted from the motion picture studios and placed on top of the third reservoir, where they were used to create a strong gale. In so doing, it was hoped the flames could be kept away from the undamaged reservoir of oil.

Hundreds of barrels of fire extinguishing fluid were poured into the flames as oil was pumped from the bottom of the tanks. This, in turn, was loaded on tankers drafted for the emergency.

At noon, April 10, neither the fire at San Luis Obispo nor that at Brea had been extinguished. They are expected to burn for several days. Until the fury of the flames has spent itself, no estimate of the damage can be gotten.

Luckily, the oil at both places was heavily covered by insurance, according to officials of the Union Oil Company, and the loss of it will not be a serious detriment to the company's financial status. As to the equipment loss, it is felt that most of it can be reconditioned at a reasonable expense. The steel tankage, the refinery and the pumping plant, however, will possess little salvageable material.

Humble, Texas.—A loss of approximately 100,000 barrels of crude oil resulted from a tank fire here April 10, when a 250,000-barrel storage tank of The Texas Company was ignited by lightning. The total loss was not estimated, but the tank was not believed greatly damaged, only the roof being destroyed. The bulk of the crude was pumped out and drained off.

Luling, Texas.—Magnolia Petroleum Company is reported to have lost crude oil amounting to $100,000 April 10, when one of the 55,000-barrel storage tanks at the tank farm here was struck by lightning. Considerable crude was reported saved from the fire, and the loss from damage to the tank will not run high.

Oil Comes in for Much Discussion At Meeting of Chemists

By Roye Munsell
Staff Representative

Tulsa, Okla.—A more learned group of scientific men could scarcely be found than that at the meeting which was held here by the American Chemical Society as the 75th assembly.

While a large part of the program had no very direct relation to the oil industry, probably the most interest was in the field of petroleum because of the place of the meeting being in the oil country.

Although the sessions of the Petroleum Division of the society were given over very largely to papers dealing with phases relating to refining, the recognition of the potentiality of petroleum as a raw material was an important development of the meet.

In spite of the rather satisfying fact that we know how to use in some way the smallest products of crude oil, whether they be gaseous, liquid or solid, that we now obtain by present processes, one might very well inquire after listening to the various papers read before the meeting whether or not we are getting products which are anyways near an adequate utilization of the limited resource, petroleum.

Research Should Develop New Products

Certainly we are not. Advances in technology ought not only to see some present products greatly bettered, but new ones made available which are now unknown or have other sources.

It will be the province of chemistry to find out these things and aid other technical knowledge in working out processes for the industry to use in obtaining higher utilization values.

The tremendous, but apparently greatly neglected, field of chemistry in the petroleum was patent at the Chemical Society's meetings. It was repeatedly brought out that we know very little, if anything, as yet of the actual chemistry involved in many of the more common processes of the industry.

Important Progress

Many important advances have been made in the past few years which have done much to substitute science for the rule of thumb. What technical progress has been made to date, however, has been from new engineering knowledge in the most instances rather than actual chemistry. And this is because we have depended very largely upon experimentation of the trial and error sort.

It can be expected that when the fund for oil research which is now in existence becomes available for thorough-going scientific chemical study of petroleum, advances will be forthcoming of real economic significance.

In this connection it is interesting to note that the coal tar industry has reached its present stage of comparatively high development only through the aid of rather academic chemists using funds supplied by the industry.

The fund for petroleum research to be used under the direction of the National Research Council was established through a gift of $250,000 from John D. Rockefeller at the recent American Petroleum Institute meeting in Los Angeles. The Universal Oil Products Company has given a like amount to the same fund.

The question as to just how the oil industry and other agencies were to co-operate through the Institute in the conduct of the scientific investigations under the National Research Council was brought up at a session of the Petroleum Division of the A. C. S. It developed that a plan is now being worked on by the A. P. I., but no definite information was available other than that the money will be used through universities, oil company laboratories and field laboratories.

No doubt exists as to the possibility of oil from shale and the probable value of known oil shale deposits are never without interest. Dr. Gustav Egloff in a talk before the society on the "Cracking of Shale Oil and Types of Motor Fuel Obtained Therefrom" predicted that the shale deposits of the west, notably Colorado, Utah and Nevada, were capable of producing 108 billion gallons of motor fuel. The deposits, he estimated, approximated 394 billion tons, or an amount which will supply motor fuels for 150 years when the present rock oil resources have been exhausted. In his opinion they are not being drained nearly so fast as many petroleum economists say.

To Meet in Fall

The American Chemical Society council has approved plans for a Fall meeting at Philadelphia the week of September 6, during the sesqui-centennial exposition there. At that time it will celebrate the fiftieth anniversary of the organization of the society.

Members of the American Chemical Society at Their 75th

Chamber of Mines Banquet Marked By Large Attendance

By Wm. V. Gross
Staff Representative

Los Angeles, California.—In his paper prepared for the annual banquet of the Chamber of Mines, Paul Shoup, vice-president of the Southern Pacific and formerly of the Associated Oil Company expressed the view that the "outlook for the oil industry in the United States at this time is satisfactory." He supplemented this statement, however, with the warning that "How the industry conducts itself in bringing in a greatly increased production or refining a great deal more oil than it otherwise would because of this cheerful outlook will measure just what this cheerful outlook means in the way of fruit."

Mr. Shoup was unable to attend the banquet but telegraphed his paper from New York.

The paper also emphasized the better understanding of the oil industry by the general public, and stated the belief that through this understanding the industry is to be encouraged constantly in its pioneering efforts to discover more petroleum resources.

Mr. Shoup was one of several on the program at the banquet. Chester W. Brown, president of the Chamber of Mines and Oil reviewed the growth of the organization, declaring that "The organization has more than justified its existence during the past year through the accomplishments of its various committees, as well as in moulding a powerful body, ready and able to answer any call that may be made upon it from time to time in the interest of the industries it represents." R. H. Ballard, vice-president and general manager of the Southern California Edison Company pointed out the benefits accruing to any community through development of oil resources, and stressed the importance of oil and its products as a source of motive power.

The banquet was attended by about 900 oil men and supply dealers, at the Ambassador Hotel, on the evening of April 7, and was said to be the greatest gathering of its kind during the past 19 years.

It was unanimously conceded that the entertainment committee, composed of the "Wildcats" largely, was struck with a happy thought when the decision was made to eliminate lengthy speeches from the program. Perhaps the longest speech given was an "anecdote," told by Russel H. Ballard, vice-president and general manager of the Southern California Edison Company.

Several novel entertainment features were provided by the committee, which included song numbers by W. R. (Dick) Guiberson, well known and popular entertainer at California oil gatherings, songs by a negro quartette, and a singing and dancing act by members of the Orpheum vaudeville circuit, and instrumental music numbers. Alan E. Morphy acted as toastmaster.

Before the banquet adjourned, special tribute was paid to Edwin Higgins, secretary of the Chamber who was largely responsible for the success of the affair, and to the "Wildcats."

Officers of the Chamber of Mines and Oil are President, Brown, Vice-Presidents, Philip Wiseman, president of the United Eastern Mining Company, and Harry J. Bauer, president of the Pacific Gasoline Company, Treasurer, H. L. Westbrook, vice-president of the Belridge Oil Company, and Secretary Edwin Higgins.

Directors of the Chamber include H. J. Barneson, assistant general manager of the General Petroleum Corporation; Ward Blackburn, manager of the Los Angeles branch of Ingersoll Rand and A. S. Cameron Steam Pump Works; R. A. Bloomfield, vice-president and general manager of the Barnsdall Oil Company; A. C. Diericx, president of the Honolulu Consolidated Oil Company; David S. Ewing, secretary and general manager of the Ethel D. Company; E. B. Gilmore, president of the Gilmore Oil Company; W. R. Guiberson, vice-president of the Guiberson Corporation; H. H. Hillman, vice-president of the California National Supply Company; Joseph Jensen, geologist of the Associated and Pacific Oil Companies, F. R. Kenney, president of the Marland Oil Company of California; M. E. Lombardi, vice-president of the Pacific Oil Company; Mr. Macbeth; C. C. Magenheimer, president of the Sentinel Oil Company; Theo. Martin, attorney; W. C. McDuffie, vice-president of the Shell Company of California; A. C. McLaughlin, vice-president of the Associated Oil Company; E. J. Miley, president of the Miley and State Consolidated Oil Companies; H. L. Payne, chemical engineer of Baverstock and Payne; R. L. Peeler, president of the Califonia Petroleum Corporation; F. C. Ripley, manager of the Chanslor-Canfield-Midway Oil Company; J. A. Talbot, president of the United Oil Company; Waller Taylor, vice-president of the Llewellyn Iron Works; F. C. Van Deinse, general manager of the Ventura Consolidated Oil Fields; A. L. Weil, attorney.

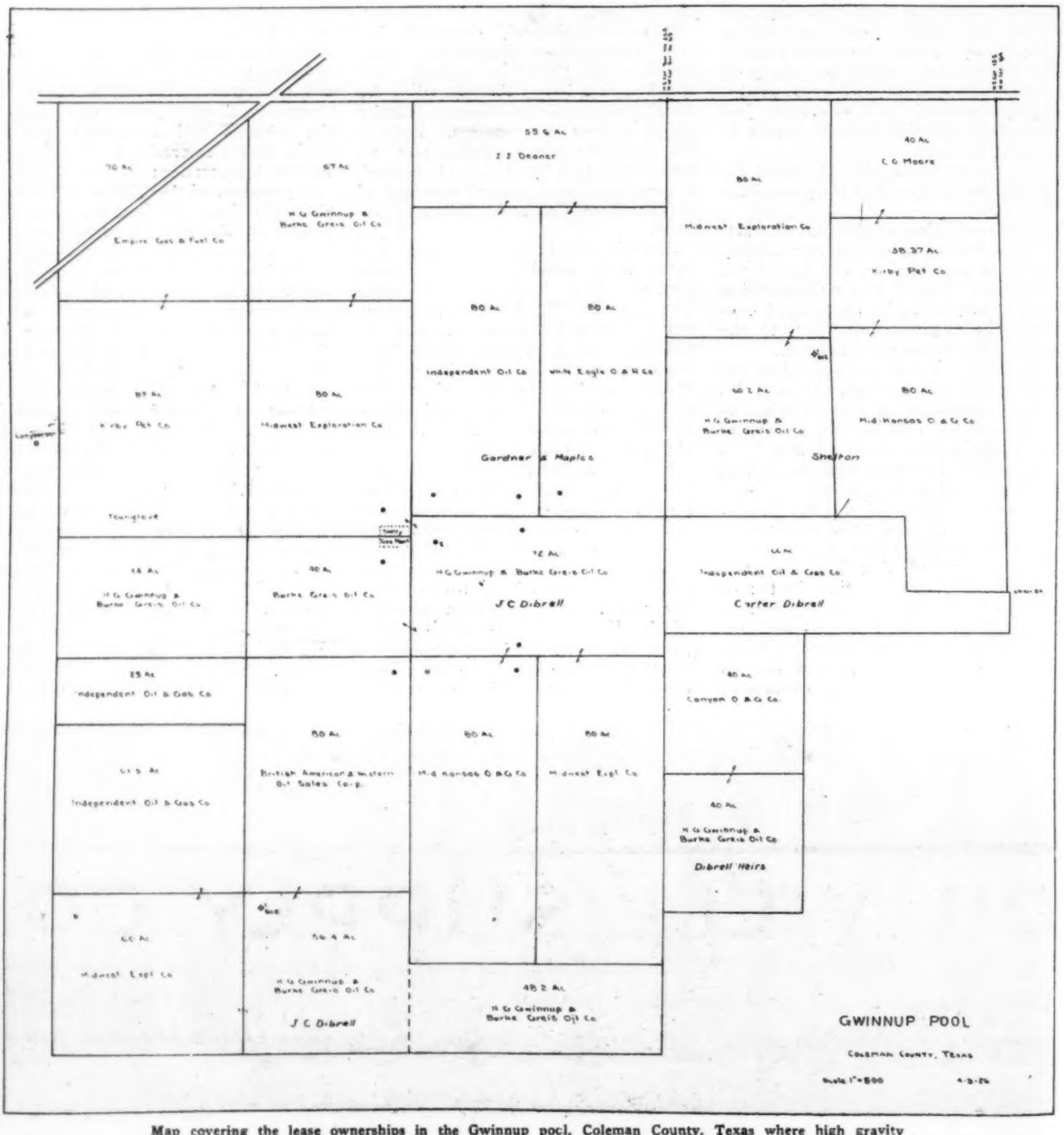
Meeting Which Was Held in Tulsa April 5, 6, 7, 8 and 9

Gwinnup Shallow Field Extended

Cisco, Texas.—The completion of a fourth producer late last week in the Gwinnup shallow field in Coleman County pushed the current output above 1000 barrels of high gravity oil daily. Burke-Greis & Gwinnup's J. C. Dibrell 1 registered an initial flow of 20 barrels per hour of 42.4 gravity at 58 degrees temperature when drilled 20 feet into the regular sand pay to a total depth of 1920 feet, and widened the field a short distance to the southwest.

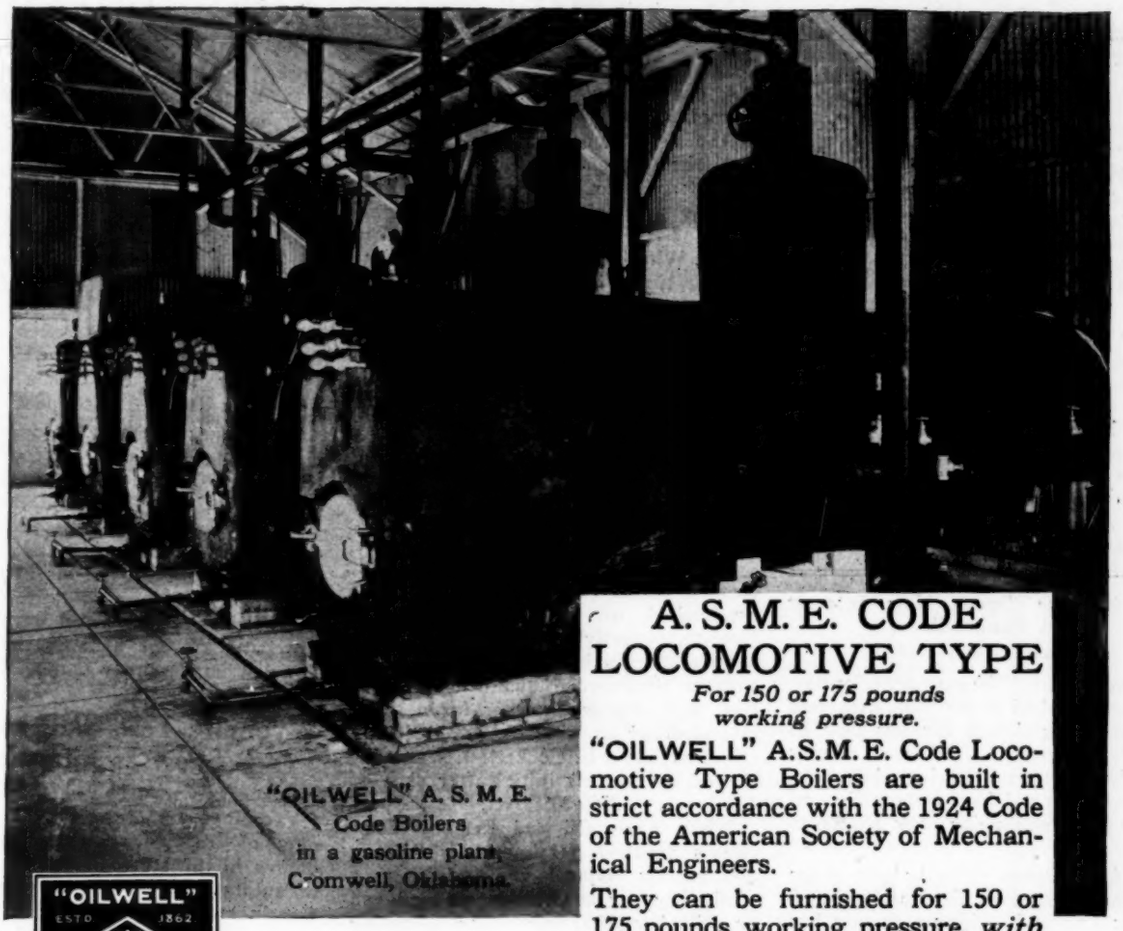
H. G. Gwinnup et al's two wells on the discovery lease are flowing 400 barrels natural, with considerable gas production, and the Mid-West Exploration Company's Dibrell 1 is swabbing about 200 barrels daily. The later well set casing low, and apparently cut off some of the gas production in the upper part of the sand. Prairie is serving this field. Canyon Oil & Gas Company's Parsons 1, located about 3100 feet west of the Gwinnup field, proved dry in the discovery sand at 1904-12 feet, and has been plugged at 1950 feet.

Bevens et al's semi-wildcat test in the townsite of Trickham, located in southeast Coleman County came in recently spraying about five barrels of high gravity crude daily with a two million cubic feee gas flow from sand at 946-47 feet. This producer is about one mile east of production. The E. L. Smith Oil Company of Mexia is credited with having obtained a half interest in the well and 80-acre lease shortly after the discovery, and is to drill five free tests, if the present producer results in a 10-barrel well; 10 free tests, if it makes 20 barrels; and 20 free tests, if it yields 50 barrels daily. Canary et al's Morris 2, which was recently drilled to contract depth of 2850 feet, is



Map covering the lease ownerships in the Gwinnup pool, Coleman County, Texas where high gravity flowing wells are obtained from sand horizon at 1900 feet

"OILWELL" BOILERS



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making about six million cubic feet of gas and some oil with water after plugging back and shooting at 2765-2784 feet. Magnolia's deep test on the J. P. Morris ranch in Coleman County has been plugged as dry at 3497 feet.

Marland Pipe Line Company is constructing a field gathering system to connect up the producing leases of the Marland Oil Company and Roeser-Pendleton on the Cook ranch in Shackelford County, where two wells are flowing 1050 barrels of 40 gravity oil daily from sand pay at 1300 feet, with several close-in tests nearing the prolific pay level. Humble built a six-inch line to this field shortly after the discovery was made in February, and Humble has one well flowing 440 barrels daily. Marland is building four and two-tenths miles of six-inch line from the field to tank car loading rack on the Katy railroad, and will be equipped to handle 10,000 barrels daily. This crude will be delivered to Texas City for Coastwise shipment. Miles Kygar is pipe line foreman for the Marland Pipe Line Company, having been transferred from Oklahoma to take charge of the Cook field gathering system.

Price Increase Opens New Interest In Panhandle

(Continued from page 26.)

convinced of this. The contract price now averages $5 and $5.50 per foot, with very few tests being drilled for less than $5 per foot on contract. Until recent months $6 has been the general price, while turnkey jobs can be had from responsible contractors at prices ranging from $35,000 to $40,000.

A half mile extension to the west of the oil producing area on the Burnett ranch near the Carson-Hutchinson County line was scored late last week when the Marland Oil Company's Burnett 1-A flowed 800 barrels natural from 3122-35 feet. This well is in the southeast corner of the northeast quarter of section 116, and logged the top of the lime at 2127 feet, with a surface elevation of 3196 feet, thereby making the bottom of the hole 61 feet above sea level, which is the usual water level in Carson and Hutchinson Counties. Marland obtained this 160-acre lease along with a total of 560 acres last December from Landergin, Blasdel & Fuqua for the drilling of one free well, and the latter trio are carried for a one-quarter over-riding royalty on all oil and gas produced on the acreage. Marland's first adventure in the Panhandle was a similar deal of this kind with the same parties, except that only a quarter of a section was involved. This tract is the southwest quarter of section 107 on the Burnett ranch, and during the past 12 months more than one-quarter of a million barrels of oil was produced from four wells.

A second oil producer was completed near the intersection of Carson-Hutchinson-Potter and Moore Counties last week when Amarillo Oil Company (Prairie's) Lee Bivins 3-B, located in section 15, CB-&CNG survey, block Y-2, Carson County, sprayed 100 barrels oil with an estimated flow of 25,000,000 cubic feet of gas from top of granite wash pay at 3066 feet. This well logged the top of the lime at 1940 feet, with a surface elevation of 3204 feet, and cased off 60,000,000 cubic feet of dry gas at 2250-2800 feet. The Amarillo Oil Company has a small pumper in the same oil horizon on the Warrick land just across the county line in northeast Potter County.

A number of five-year leases in Hutchinson County are expiring within the next month or two, and drilling is being rushed by the operators to save their acreage. R. F. McMillen-Phillips Petroleum Company and others' J. A. Whittenburg 1, located in lot 23, Whitley survey, has won a race against time to save lease on nearby acreage, and a natural flow of 240 barrels initial was obtained last week from sandy-lime pay at 2885-93 feet, with a total depth of 2914 feet. This location was made in December, and production was required prior to the 25th of this month. Fred Devore and Latimer were the drilling contractors, and they are now tearing down to let Phillips move in company tools to complete.

The Badger Oil Company's Lewis 1, located about four miles east of the established oil area in Hutchinson County, recently saved its lease by a narrow margin by getting gas production in commercial quantities at 2810 feet, and is now showing for a small oil producer at 2862-70 feet. Newby Oil Company's E. Cockrell 1, section 3, flowed 400 barrels initial after shot of 120 quarts at 2980-3081 feet.

White Eagle Oil and Refining Company's Smith 1, section 11, is flowing 300 barrels natural while drilling in sandy-lime pay at 2822-42 feet, and will be drilled to 2860 feet, before shooting the pay horizon. Marland Pipe Line Company has contracted for this crude, and is erecting tankage at the well, pending competion of its gathering line. Travelers Oil Company's Kingsland 1, which has been in process of completion since early February, was shot with 200 quarts at 2870-2930 feet and bridged. The well flowed 60 barrels during the first hour after shot through the bridge, and soon settled to 50 barrels daily.

New Producer for Deep Lime Area This Week

Wichita Falls, Texas.—The deep lime horizon in the southeast part of Throckmorton County contributed a 425 barrel producer late last week when the Red Bank Oil Company's V. Parrott 1, located in the southeast corner of the northeast quarter of section 971 and about two and one-half miles northwest of the Masters field, flowed natural from gray lime pay at 3936-65 feet. This well is making 39 gravity oil, and is the largest producer completed to date in the county. Prairie has made pipe line connections.

This pay horizon was uncovered in the Masters field early last February when the Reiter-Foster Oil Corporation's Stubblefield 2 flowed 115 barrels by heads at 3919-40 feet, but was passed up when rapid decline took place. The latter test is now fishing collapsed casing after shot at 4267-4332 feet. Magnolia's N. L. B. Davis 1, located in section 2326 and about two and one-half miles northeast of the Red Bank producer, showed oil in lime at 3950-52 feet several months ago but junked the hole before a test could be obtained. In the lower end of Throckmorton County, Humble's K. Ledbetter 1, located in the W. P. Bennett survey No. 2 and on the south line of the county, swabbed 72 barrels of 38.6 gravity oil during first 24 hours from shallow sand pay at 775-78 feet, and made 25 barrels on the second day. This sand was encountered with a 15½ inch hole. Humble paid $25 per acre for a lease near the well last week, and will extend a line to connect the well.

The Texas Company is now holding the leading position on production in the North Texas district, with a daily average of 8410 barrels, while Magnolia ranks second with 7935 barrels daily. Texhoma Oil and Refining Company (Continental) is in third position with 7180 barrels daily. Humble, Gulf, Prairie, Empire and Barnsdall Oil Company are the next on the production list in the order named.

Wyoming Tests Fail to Show as First Expected

Casper, Wyo.—The Wallace Creek (Wyoming) structure, long considered one of the most promising wildcat domes in the state, has yielded a flow of sulphur water at 3928 feet in the Continental - Consolidated Royalty-Western Exploration test of the field. Small quantities of gas and oil had been found at different depths and the top of the sand containing the water showed signs of oil. The artesian flow is either coming from the Shannon sand or a thinner formation above it. The well will be drilled deeper.

An old gas well, drilled five years ago, in the Little Grass Creek field, has turned to oil and is rated as a 200-barrel well by those who have returned from the field. The oil is of a very good grade. The hole is standing practically full of oil and flows occasionally. The Thermopolis Gas Company recently acquired this well and others in the field to insure a permanent gas supply for the city of Thermopolis.

After drilling more than 4000 feet in its deep test of the Salt Creek field, the Continental Oil Company has plugged the hole back to 1730 feet and completed the well in the second Wall Creek sand. This test has been a very troublesome and expensive undertaking for the company. A diamond drill was substituted for the standard rig. The core barrel containing the diamonds was lost and a delicate fishing job ensued. The Lakota sand had a good showing of oil but did not yield commercial production.

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PERSONAL MENTION-MEN YOU KNOW

Oscar Sutro, counsel for the Standard Oil Company of California, replaces A. B. Brooks, resigned, January 1, 1926, on the board of directors of the Standard Oil Company of California.

Norval White, Pacific Coast representative of the American Petroleum Institute, who has headquarters in San Francisco, was in Los Angeles this week.

W. J. Algiers, assistant secretary-treasurer Transcontinental Oil Company, Columbus, Ohio, represented his company at the meeting of refinery credit managers held in Houston April 6, 7 and 8.

F. G. Palmer, president of the Kaw Boiler Works Company, Kansas City, Mo., was a visitor in the Gulf Coast territory last week, visiting refineries in Houston and Port Arthur.

J. D. Powell, assistant treasurer of Skelly Oil Company, El Dorado, Ark., presided as chairman of the meeting of Refinery Credit Managers held in Houston April 6-7-8.

Fred C. Brown, representative of the Keen & Woolf Oil Company, Shreveport, La., was a business visitor in Houston last week and attended the meeting of Refinery Credit Managers.

Lyman C. Reed, geologist for Rio Bravo Oil Company, Houston office, has just returned from a trip of two weeks to San Antonio and other Southwest Texas points.

Blaine Johnston, general superintendent of the Crown-Central Petroleum Corporation, Houston, left last week for an extended trip in the Eastern States. He will visit holdings of his company at Warren, Pa., and near Lexington and Boling Green, Ky.

John R. Suman, vice president and general manager Rio Bravo Oil Company, Houston, was the honor guest at a birthday party given him by Rio Bravo employes April 10, at the San Jacinto Battlegrounds, 20 miles south of Houston, on the ship channel. Mr. Suman was presented with a desk water set from the Rio Bravo force attending the party.

Sterling Silver bowl, cups and ladle presented to the American Association of Petroleum Geologists by J. Wallace Bostick.—Mr. Bostick expressed the hope that an annual contest on the golf links will be one medium of promoting comradeship and personal contact. Winners of the 1926 contest were I. R. Sheldon, chief geologist for the Texhoma Oil & Refining Company and Nathan Adams, president of the American Exchange National Bank of Dallas, a guest at the annual meeting

Col. A. E. Humphrey arrived in Houston late last week from his Denver home to pay a visit to his company headquarters office now maintained in the Gulf Coast. He was met here by Julius Fohs, consulting geologist in New York and former associate of Col. Humphrey in the Mexia development.

Louis Lenz returned to his Houston office last Friday from a two weeks trip to Southern Louisiana, where he has been making field surveys in the Lockport field. Lenz is chief engineer for Vacuum Oil Company.

O. L. and J. L. Layne, Laredo brother operators, have recently retired from the Aviator Oil Company, which will be operated in the future by Judge Tom Neal and associates. O. L. Layne is in Los Angeles and J. L. Layne in Las Vegas, New Mexico. The Layne brothers will return in the near future to Laredo, where they have other oil interests.

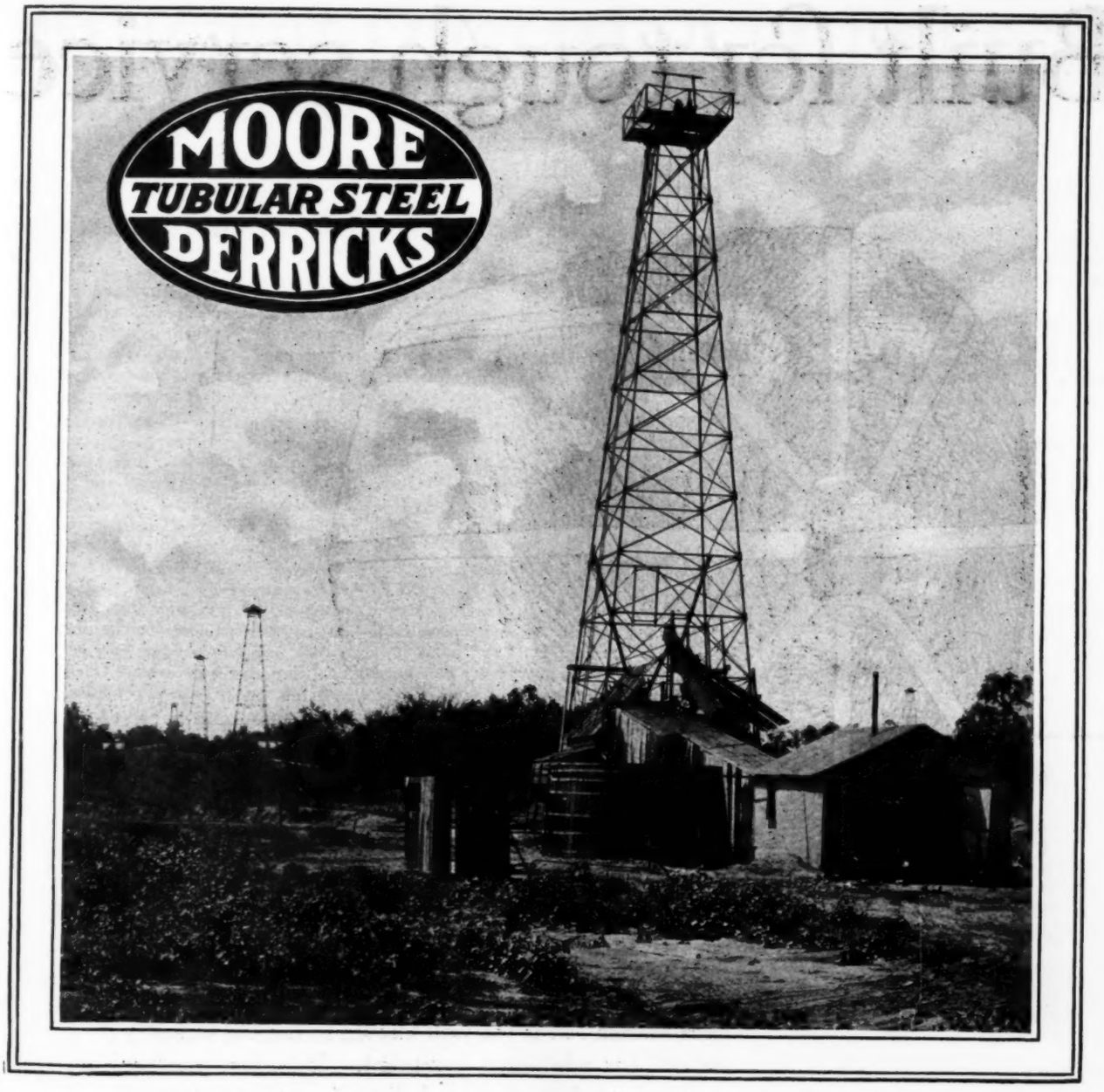
R. C. Beckstrom and P. F. Shannon, professors in the Colorado School of Mines, Boulder, Colo., were in Houston early last week, accompanied by 11 students, who are making a study of oil recovery in the Gulf coast. Practically every field in the coastal section of Texas was covered.

L. C. Hay, district geologist in charge of all geological work in Kansas for the Skelly Oil Company, has resigned. Mr. Hay has also served on the geological staff of the Sun Company at Dallas, Texas, and Southwestern Gas Company, Independence, Kan. During the two years he was at El Dorado with the Skelly Company, the company's Kansas production increased 500 per cent.

E. E. Paxton and I. J. Truman, Jr., of San Francisco, Cal., directors of the Jack Dalton Oil Company, inspected the producing properties of the company in Palo Pinto County, Texas, during the past week.

Prairie Stockholders Meeting

Tulsa, Okla.—Stockholders of the Prairie Oil and Gas Company in meeting last night at Independence re-elected all directors, who in turn re-elected officials. W. S. Fitzpatrick, chairman of the board; Nelson K. Moody, president; Dana P. Kelsey, vice-president; E. T. Patterson, treasurer, and John T. Hallihan, secretary. No action was taken on resumption of dividends which were suspended last year.



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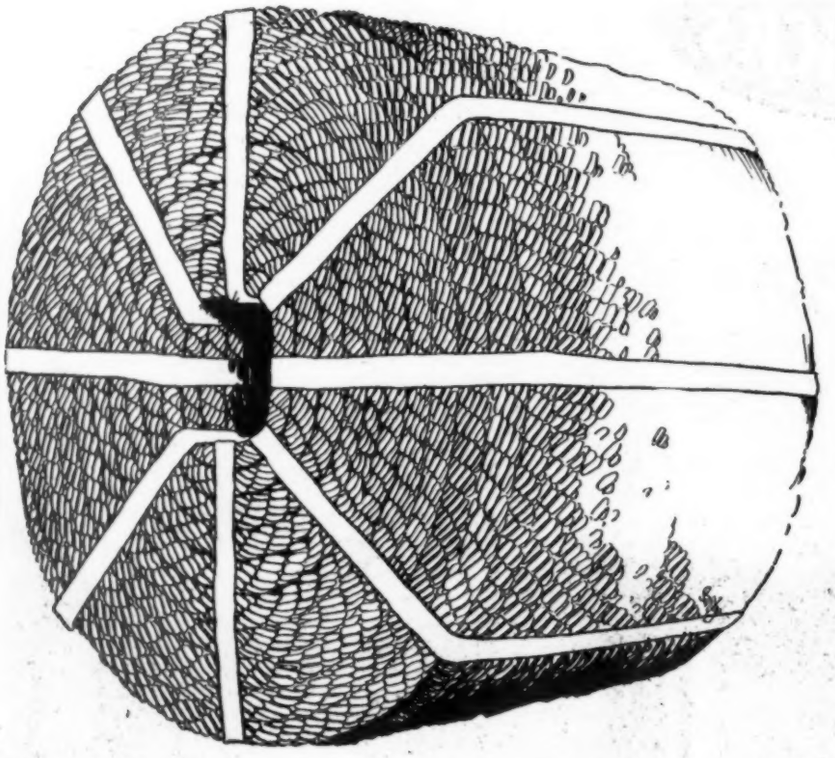

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STORES

Efficient Operation of Boilers Makes for Conservation

By F. G. D. Muller,
Houston, Texas

THE application of steam for power purposes can not be classified as an invention of recent times. Though the development of the steam engine saw its greatest strides during the last century, it is known that steam was used as a source of power before the beginning of our present civilization.

For more than 2000 years ago, Hero of Alexandria invented an engine to demonstrate the force of steam. This engine, which is not definitely known to have had any practical application, is shown in Fig. 1. Hero's invention consisted of a hollow sphere (A) with two pipes (B) inserted at two opposite points of the sphere. These pipes were open at the ends and bent at right angles, forming a connection between the interior of the sphere and the atmosphere. The sphere was supported by two trunnions (C) and (D), the latter of which was hollow, connecting the inside sphere with the steam space of the boiler (F).

By applying heat, the water in the boiler was converted into steam, passing up through the hollow trunnion into the sphere and making its escape through the bent tubes into the atmosphere.

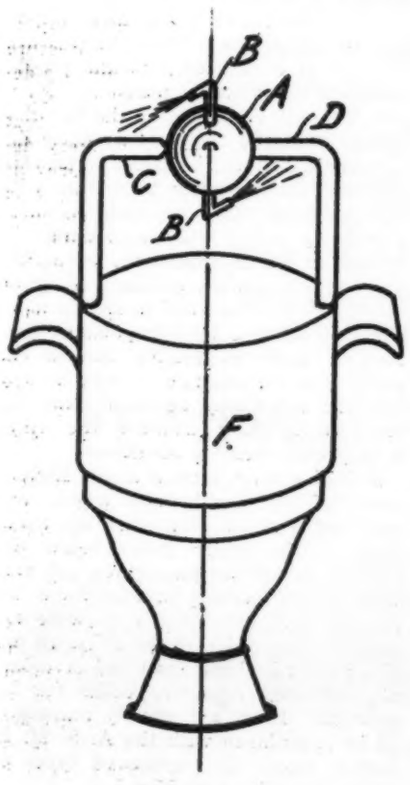


FIG. 1.

The reaction, which was set up by the escaping steam, caused the sphere to rotate in a direction opposite from that of the steam, working on the same principle as a modern lawn sprinkler. Hero's engine is also the first reaction turbine on record. However, after Hero's first attempt to utilize the expansive force of steam, very little progress has been recorded in the useful application of steam power, and this is probably due to the fact that in the early days human labor and animal power was cheap and plentiful.

Around 1630 an Italian by the name of Giovanni Branca invented a practical steam turbine, which is shown in Fig. 2. The steam issuing from the mouth of the vessel (A), which had the fancy shape of a human being, was directed against the vanes of the wheel (B), causing it to rotate. Through a suitable arrangement of gears, and the cams on drum (C), the original rotary motion of the wheel (B) was transformed into a reciprocating motion of the stampers (D), crushing the material that was placed in the bowls (E), thereby performing useful work. In connection with this primitive outfit it is interesting to note that with this early steam installation a rotary motion was used to obtain the reciprocating movement of the stampers. During the later development of steam power, not considering the steam turbine, the opposite principle was applied and the reciprocating movement of a piston transformed into a rotary motion of the crank shaft.

Several scientists of the gray past have written treatises on the subject of steam generation and application. The first practical application on a large scale was the removal of water from mines and quarries.

Thomas Savery, who was the builder of the first engine for this purpose, exhibited his invention before the Royal Society of England, in 1699. This engine, if one may call it such, consisted of a steam generator and two copper vessels or receivers. A three-way cock was arranged in such a manner that the steam from the boiler was allowed to enter into one receiver, displacing the water that previously had been admitted. Simultaneously, cold water was poured over the outside of the other receiver, which previously had been filled with steam, and this would create a vacuum, casing the water from the mine to flow into the receiver. Every time the three-way cock was turned, which was done by hand, a receiver full of water was removed from the mine, both receivers working alternatively.

Following Thomas Savery's invention came that of Papin, who suggested the use of a piston inside of a cylinder. Newcomen put this suggestion into practical use, resulting into what is known as his atmopheric engine, which is shown in Fig. 3. Steam was

FIG. 2

admitted into a vertical cylinder under the piston, causing it to rise by the effect of the steam pressure. At the end of the stroke water was injected into the steam-filled space of the cylinder, creating a vacuum and causing the piston to come down under the influence of atmospheric pressure, actuating a mine pump which was connected to the other end of the beam.

Among all other inventors the figure of James Watt stands out prominently and the development of the steam plant was given great impetus during the life of this great engineer.

His first invention was to condense the exhaust steam in a separate chamber, instead of cooling the steam direct in the working cylinder. The cylinder was thereby kept as hot as possible, which resulted into a saving of heat, and consequently fuel. James Watt also invented the double-acting steam engine, the slide valve, throttle, governor, mercury steam gauge and the water glass.

Together with the development of the steam engine, the development of the boiler has also made great strides. Most of the early boilers were made of cast iron, but the use of higher steam pressure made it imperative that stronger material was used. Among the early types of boilers we find James Watts' "wagon boiler," so called because of its shape. An outline of this boiler is shown in Fig. 4. This boiler was filled with water to about two-thirds of its height. The upper one-third was used as steam space. The fire was maintained under the

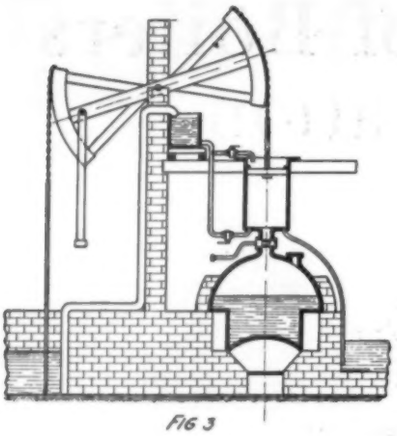


FIG 3

boiler, the gases of combustion escaping through the stack, which was located in the rear of the boiler. The bottom of the boiler was made concave, presumably to offer greater resistance against rupture and also to give boiler scale and mud an opportunity to settle in the corners, instead of covering the whole bottom of the boiler.

This kind of a boiler, where the fire is maintained under it, is very seldom used now, and in most modern boilers in order to obtain greater efficiency and fuel economy, the furnace has been built in.

Cast iron boilers are now very seldom used unless in heating systems and in no case where steam pressures of any appreciable amount are carried.

Modern Boiler Construction

Steel plates are now universally used in the construction of high-pressure steam boilers. The shape of up-to-date boilers varies widely and depends largely upon the class of work for which the boiler is intended. Theoretically speaking, a boiler made in the shape of a sphere is the strongest form into which a boiler or any other pressure vessel can be made. Without going into mathematical details it may be stated that for a given working pressure and a certain factor of safety, the sphere shape boiler would require the least amount of metal. It is also well suited to withstand internal pressure, but there are justified objections against this shape, and the next best shape for a boiler is the cylindrical form. Flat surfaces, unless sufficiently stayed, form weak points in the construction of boilers.

In order to avoid accidents, it is important that boilers are carefully designed; stresses which occur in a boiler under working conditions must be accurately computed and suitable material specified. This material should be thoroughly inspected for flaws or defects and rejected when it has not the required strength. Defective material entering into the construction of steam boilers may consist of plates containing blisters or laminations. Defective workmanship may be caused by burned rivets, careless shearing or punching, or plates injured by excessive caulking or bending. The boiler plates are sometimes scored by sharp caulking tools, and stresses set up in the joints by reckless use of the drift pin to match up inaccurately drilled or punched rivet holes. Excessive rolling of the tubes may be the cause of cracks in the flue sheets. A boiler after completion should be subjected to a thorough examination and tested with hydrostatic pressure equal to 1½ times its working pressure before being placed into service.

In 1775 George H. Babcock and Stephen Wilcox, both pioneers in the construction of steam boilers, published a list of requirements of a perfect steam boiler, and since this list represents the best practice of today, it is hereby reproduced.

1. Proper workmanship and simple construction, using materials which experience has shown to be the best, thus avoiding the necessity of early repairs.
2. A mud drum to receive all impurities from the water, and so placed as to be removed from the action of the fire.
3. A steam and water capacity sufficient to prevent any fluctuation in steam pressure or water level.
4. A water surface for the disengagement of the steam from the water, of sufficient extent to prevent foaming.
5. A constant and thorough circulation of water throughout the boiler, so as to maintain all parts at the same temperature.
6. The water space divided into sections so arranged that, should any section fail, no general explosion can occur and the destructive effects will be confined to the escape of the contents. Large and free passages between the different sections to equalize the water line and pressure in all.
7. A great excess of strength over any legitimate strain, the boiler being so constructed as to be free from strains due to unequal expansion and, if possible, to avoid joints exposed to the direct action of the fire.

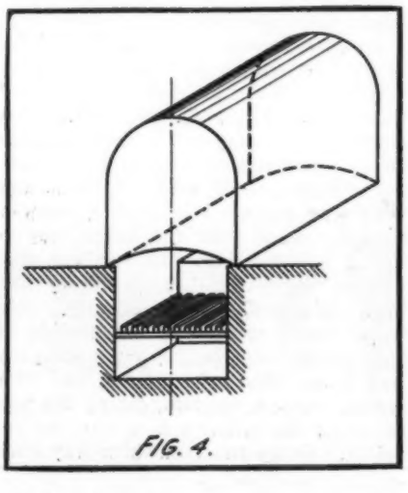


FIG. 4.

8. A combustion chamber so arranged that the combustion of gases started in the furnace may be completed before the gases escape into the chimney.
9. The heating surface as nearly as possible at right angles to the currents of the heated gases, so as to break up the currents and extract the entire available heat from the gases.
10. All parts readily accessible for cleaning and repairs. This is a point of the greatest importance as regards safety and economy.
11. Proportioned for the work to be done and capable of working to its full rated capacity with the highest economy.
12. Equipped with the very best gauges, safety valves and other fixtures.

For oil field work the locomotive type boiler has been most universally adopted. The chief advantages claimed for this type boiler are:

1. A large heating surface as compared with its volume.
2. Self-contained, i.e., it requires no brick work for flues or for setting.
3. Portability.

The main disadvantages are inaccessibility, especially so on the smaller sizes, and the numerous stays and studs with the attending chance for leakage.

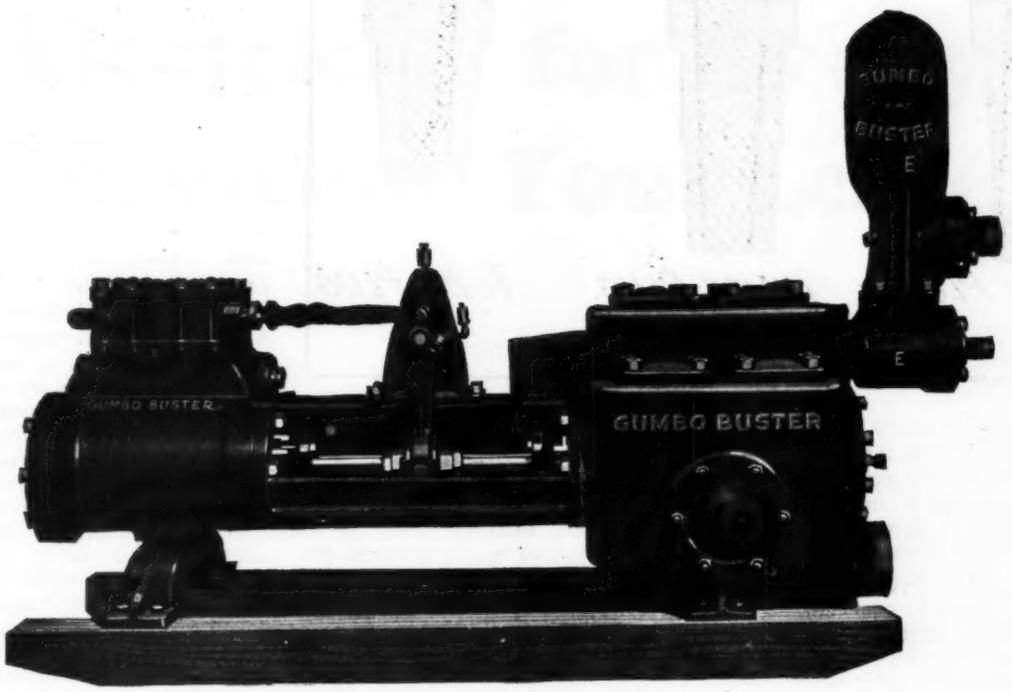
Boiler Safety Appliances

For the safe operation of a steam boiler it must be of necessity equipped with suitable apertures or boiler fixtures.

The safety valve is the most important of all, as this relieves the pressure as soon as it exceeds a certain pre-determined maximum pressure. Much stress should be placed on the fact that this part of the boiler is a safety device and care must be taken to prevent ignorant persons from tampering with it or raising the blow-off pressure. Preferably safety valves should be locked or sealed and made accessible only to responsible parties. A good safety valve is designed in such a manner that loading by irresponsible persons is made impossible, but at the same time constructed in such a way that the valve may be lifted from the seat to ascertain whether the valve is in good operating condition.

A fusible plug, located at the highest point of the combustion space, will melt and give warning when the water level in the boiler drops below the point at which the plug is located, preventing the heating surface from becoming overheated and a possible explosion. In order to be effective the plugs must be kept clean and occasionally removed from the boiler for inspection. Plugs are usually constructed in accordance with the A. S. M. E. boiler code, the approved types of which are shown in Fig. 5.

Another precaution against low water in the boiler is the installation of



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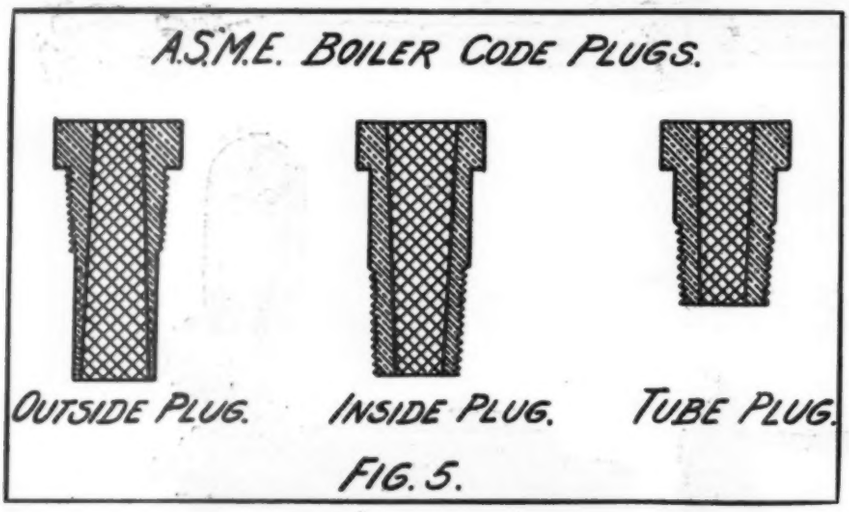

FIG. 5.

a Black's low water alarm, which gives an audible warning in case the water level should happen to drop down too low. The apparatus is shown in Fig. 6, and is used more frequently in foreign oil fields than in this country.

It consists of a pear-shaped air chamber (A), which is connected by a pipe (B) with the inside of the boiler, the lower end of this pipe is located at the lowest allowable water level. On top of the air chamber is a whistle (C) and the lower end of the whistle is shut off by a fusible plug (D), which is made of a metal alloy that will melt at 212 degrees F. Under influence of the steam pressure, the water will be forced up through the pipe, thereby compressing the air in the air chamber. The air prevents the warm boiler water from coming into direct contact with the fusible plug, but it is evident that, when the water level in the boiler drops below the bottom end of the pipe, the water will drain out of the air chamber and that steam will displace the air in the apparatus, melting the plug and causing the whistle to blow.

This low water alarm is a very simple and effective safety device, and to the knowledge of the writer has saved many a boiler from going up into the air.

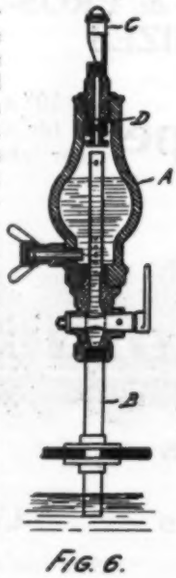

FIG. 6.

The water gauge is another important boiler fixture, showing the water level in the boiler. Special care should be taken that the gauge glass is absolutely tight, as a leaking connection at the bottom will indicate the water level too low, and a leaking connection at the top will show the water level too high. To illustrate this matter, suppose that due to leakage at the top there is a pressure drop of .1 lb. per sq. inch. This would be equivalent to 3 inches of water pressure, or in other words, the water gauge in this particular case would show 3 inches of water, whereas the crown sheet was being heated up getting ready to drop.

Visibility of the water in a gauge glass is of prime importance, and among the many patents taken out to increase the visibility, Klinger's prisma glass stands out prominently. In this particular gauge glass, which is shown in Fig. 7, the water shows as black as ink. The glass is mounted in a metal case and it seldom, or never, breaks in case of a draft or sudden temperature change. After a long period of time the glass has usually to be renewed on account of the sharp edges of the prisma's dissolving in the hot boiler water, which lowers the visibility. The glass is about ½-inch thick and very little of it is exposed, and does not break, even when accidentally being struck while under pressure.

FIG. 7

In some countries it is customary, as an additional precaution against accidents, to mark the pressure gauge with a red line at the point of maximum pressure, and at which point the safety valve is supposed to blow off. This gives the fireman an opportunity to check the blow-off pressure of the safety valve, and he will note, without having to look at the figures on the scale, when the maximum allowable pressure has been reached. The pressure gauge should be connected to the boiler in such a way that it will not be injured by the heat, and this is done by employing a syphon or waterleg. Condensate in this pipe will prevent direct contact of the hot steam and prevents heat transmission to the epiliptic tube. A three-way cock should also be provided to occasionally blow out the gauge connection. In the same countries it is also customary to indicate with a strip of copper or brass riveted to the front of the boiler the location of the highest point of the heating surface. This enables the operator to see how much water he has above the furnace or the flues.

Combustion

Combustion is the rapid chemical combination between two or more elements which causes the generation of heat. Before this chemical combination can take place the fuel must be heated up to the ignition temperature. After a fire is once started the ignition temperature is kept up by the combustion itself, as long as the necessary elements required to maintain combustion are being supplied. The principle elements involved in combustion are carbon and oxygen. In the solid, liquid and gaseous fuels, the percentage of carbon is greatest, but hydrogen and sulphur may also occur. Oxygen, which is required to maintain combustion, is contained in the atmospheric air, mixed with another gas, nitrogen. The mechanical mixture of which atmospheric air is made up consists of 21 per cent of oxygen and 79 per cent of nitrogen by volume or 23 per cent of oxygen and 77 per cent of nitrogen by weight. The nitrogen contained in the air served no useful purpose in combustion, and as a matter of fact is the cause of a serious but unavoidable waste. If some genius could devise some means of economically separating the nitrogen from the oxygen before it enters the boiler furnace, a saving in the fuel bill of at least 10 per cent could be affected. In addition to this, the large combustion spaces now required in a steam boiler could be considerably reduced in size.

The principles involved in complete combustion are practically the same for all fuels, whether solid, liquid or gaseous.

1. The air supply must be sufficient to furnish the oxygen required for the complete chemical combination with the elements of the fuel.

2. The temperature must be sufficiently high to bring about combustion.

3. The air must be distributed in such a manner as to bring the oxygen into intimate contact with all parts of the fuel.

In the case of oil the difficulty of maintaining combustion is much greater than would appear at first sight. Briefly stated, it is necessary to break up the oil into particles of such size, that the oxygen in the atmosphere will unite perfectly with them in combustion. The breaking up of the oil into globules of small size is called atomization.

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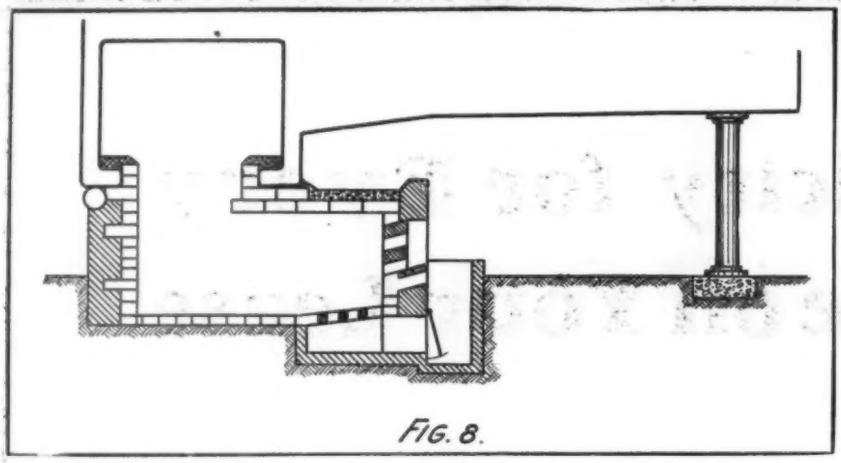


FIG. 8.

with oil or gas, the combustion chamber is lined with a refractory, preventing the gases from coming into direct contact with the relatively cold walls inside the boiler. This refractory has a high temperature and insures the maintenance of the ignition temperature even after the combustion for some reason or other has ceased. It also prevents the flame from impinging directly upon the metal surfaces of the boiler.

For permanent installations it is very desirable that the air required for combustion is heated prior to admission into the combustion space, possibly using some of the heat that otherwise would be wasted into the atmosphere.

The theoretical quantity of air required to burn one pound of oil under ideal conditions is 14 pounds, but in practice considerable more is required, usually 24 pounds, all depending upon the method of atomization and whether steam, air or pressure is used to atomize the oil.

Gas fuel theoretically requires 10.9 pounds of air to burn 1 pound of gas, and since it is possible to obtain a more thorough mixture between gaseous fuel and air than is the case with liquid fuel, it is usually found that higher efficiencies are possible with the first kind of fuel.

Both oil and gas require a lesser degree of draft than the solid fuels. The chief resistance to draft in coal firing are the passageways through the grate bars and the coal bed. With the other two kinds of fuel there is no such resistance to overcome and a strong draft would carry the unburned gases into the flues and the smoke box, causing soot and ineffective use of the fuel. For this reason smoke stacks for oil fired boilers are made considerably smaller or shorter than those for coal fired boilers of the same size.

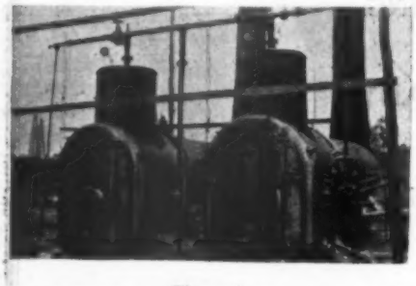


Figure 9.

In considering combustion we may consider three different kinds, viz.:

1. Incomplete combustion.
2. Perfect combustion.
3. Complete combustion.

Incomplete combustion occurs when there is a lack of air. This is often accompanied with black clouds of smoke, but this is not a rule, since the gases of combustion may pass out of the stack as carbon monoxyde, which is invisible.

Perfect combustion is the result when the exact amount of oxygen for combustion is supplied to the fuel. Perfect combustion is not possible in an ordinary boiler.

In the case of complete combustion, all of the fuel may be burned, but with an excessive amount of oxygen.

When smoke is coming out of the stack is an indication that the air supply is insufficient. No smoke at all may indicate either an excessive amount of air or an insufficient air supply resulting into the formation of carbon monoxyde resulting into less heat being generated per pound of fuel.

One pound of carbon burned to CO_2 generates 14,650 B.T.U.

One pound of carbon burned to CO generates 4,400 B.T.U. For every pound of carbon that passes off after combustion in the form of CO, there is a loss of 10,250 B.T.U., or nearly 70 per cent. From this it may be seen that a stack without any signs of smoke may represent a combustion loss many times greater than that when a heavy visible smoke is coming out of the boiler. A light blue haze issuing from the stack is a good indication that the combustion is reasonably efficient.

The gases of combustion when leaving the boiler should not be below 400 degrees F. This in order to prevent the formation of hydrochloric acid, which is liable to precipitate at a lower temperature and which would have a ruinous effect on the steel of the boiler. It is also necessary to keep the temperature of the waste gases sufficiently high in order to maintain the draft, which is solely due to the difference in temperature, and consequently weight of the atmospheric air and the waste gases.

The combustion space in the boiler has an important bearing upon the boiler capacity. It requires a certain amount of space in which to accomplish the chemical combination of the elements involved in combustion. According to Peabody, with a draft at the damper equal to ¼-inch of water, the limit may be placed of 5 pounds of oil fuel per cubic foot of furnace volume per hour. With forced draft of about 5 inches of water the same author says that 15 pounds of oil per cubic foot of furnace volume can be burned per hour.

The furnace volume and consequently the capacity of locomotive type boilers may be increased by building a subfurnace or Dutch oven. This arrangement is shown in Fig. 8 and is especially to be recommended for permanent installations, such as compressor stations, treating plants, etc. This type of furnace was developed during the war in an endeavor to make as much oil as possible available for war time purposes. In many cases a saving in fuel of as high as 20 per cent was the result of this scheme.

To Be Continued Next Issue

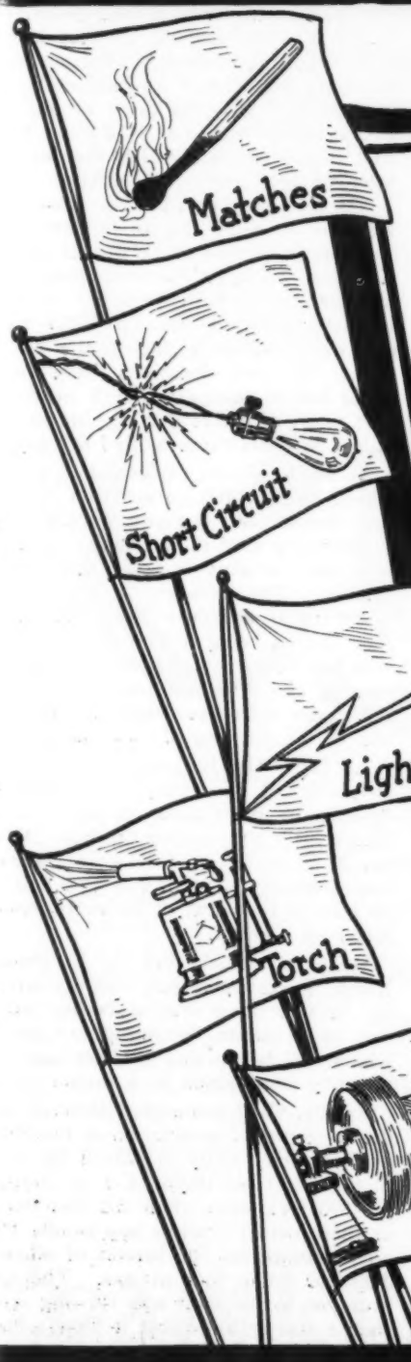
Axelson Personnel Changes

Several changes in the personnel of the Axelson field organization have recently been made, providing promotion for old employees and making openings for new members.

W. R. Lake, formerly covering the Kansas district has been transferred to the Tulsa district to replace "Dutch" Zwerneman who has been placed in charge of certain Los Angeles districts. Earl L. Chandler, who has just recently become associated with the company will represent it in the Kansas district formerly covered by Mr. Lake. Other new members joining the company include Luther (Louie) F. Lamb and Robert B. Stout. Mr. Lamb will serve as representative in the Wichita Falls field, while Mr. Stout has been delegated to cover the Dallas district.

Leslie McRay was appointed April 10 by Judge H. E. Bell, head of the Oil and Gas division of the Texas Railroad Commission, as deputy supervisor in charge of the Laredo district. McRay is a practical field man, having drilled in Mexico, South America, Texas and Wyoming.

danger



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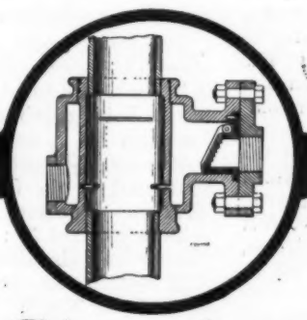

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Deeper Drilling Given Impetus by Recent Coastal Completions

By Wallace Davis
Staff Representative

Houston, Texas.—Deeper drilling in Gulf Coast fields stands out more prominently than every as the future development program of companies operating in this section. For sometime deeper drilling has been given close attention by Coastal operators as a means for meeting a diminishing recovery, but recent favorable discoveries from this trend of development can be expected to result in greater interest immediately.

The two completions by the Yount-Lee Company in the flank sands of the Spindletop Dome during the past week follows [illegible] on these new and deeper producing horizons back in January. Deepening has also shown favorable results in several other coastal areas.

Yount-Lee's McFaddin No. 4, at Spindletop, began flowing 3,000 barrels of pipe line oil, 28 Baume gravity, from 3518 feet last Friday night, and the Gladys City No. 3, on a different side of the dome, was brought in by this company from a 3015-foot sand manking 4,500 barrels of fluid of which only 15 per cent was oil. The gravity tested 15.75 Baume. These two new wells bring the total number of deep sand wells at Spindletop to three, the Yount-Lee Company having first opened off dome production January 10 of this year, just 25 years after the famous Lucas well on top of the dome flowed the biggest initial of any well yet completed in the country from a shallow cap rock sand.

The newly discovered sands off the Spindletop dome are thick and apparently highly saturated. Yount-Lee operators drilled 70 feet into the McFaddin No. 4 sand and 26 feet into the Gladys City No. 3 sand. The No. 3 McFaddin, which had an initial of 4500 barrels, is now flowing around 700 barrels after increasing to 5,000 a few days after completion. The falling of production resulted from salt water intrusions about a month after completion.

Spindletop dome is shown to be of the extremely steep type in that the No. 4 well, only 300 feet to the south of the No. 3, picked up the pay at a depth 700 feet lower. Tests to the south of the No. 4, from all indications, may find the pay at as low as 4,000 feet.

While the McFaddin 4 was to some extent proven, the Gladys City 3 is a discovery outright. It is located 600 feet west of production in the northwest corner of Manufacturer's Square No. 12. Although it promises little in the way of a substantial well offsets further to the west have good chances of getting pipe line crude from lower depths.

After contributing more than 50,000,000 barrels of heavy crude from shallow sands to the coastal supply during 25 years of producing, much of which has been turned out at a rate of less than 2,000 barrels per day, Spindletop offers a high possibility of coming back strong with deeper pay in proportions like Humble field and other salt dome pools, which produced first from shallow cap rock formations and later gave up deep oil.

The search for deeper production is under way at Sour Lake, Batson, Saratoga and Boling. Pierce Junction field may also be the scene of several deep tests soon due to the completion two weeks ago of Rio Bravo Oil Company's Settegast No. 2 for 300 barrels from 4,676 feet, several hundred feet deeper than former production found there.

At Sour Lake, where Yount-Lee brought in its Gilbert No. 2, late in 1925, for 2000 barrels of 40 gravity crude from below 4000 feet, various companies holding acreage off the edge of the dome have planned exploitations. Yount-Lee's Gilbert 3 is now drilling at 3677 feet as an offset to the discoverer of the new deep sand. The No. 2 is producing 300 barrels. The Bashara Oil Company failed to make a well of its No. 18 at 3736 feet and is drilling its No. 7 on an adjoining lease at 2150 feet with intentions of going deeper. The Sun Company has a derrick up for its Carpenter No. 1, located 2000 feet west of production at Sour Lake. The Texas Company abandoned its Lijarza No. 1 at around 3900 feet. Near Strain township, not far from Sour Lake, Humble Oil and Refining Company has started its Weise No. 1 test for deep oil. Humphrey Oil Corporation has its Jackson No. 1 on the Stephen Jackson league at Sour Lake down 1625 feet, with the hopes of getting deep production.

The flank sands of Saratoga dome, about 15 miles northwest of Sour Lake, is being tested for deep oil. Rio Bravo has a fishing job at 3820 feet in its Fountain No. 5, one and one-half miles northwest of production. On the southwest of the field about the same distance, Vacuum Oil Company is drilling its Teel No. 3 at 3070 feet. The Teel 2 was abandoned late in 1925 at 3222 feet in cap rock 1000 feet northeast of the No. 3.

The Kirby-Capitol companies are preparing to drill deeper in their Hodges No. 4, which is now producing 140 barrels of 15.9 gravity oil on the beam from 3610 feet. This well was a 150-barrel completion early in March, but failed to continue flowing, due to weak gas pressure. The No. 3, which came in as a 10,000-barrel gusher late in October of last year and sanded within a few hours, is now pumping 60 to 70 barrels from 3475 feet. The joint Kirby-Capitol interests plan new locations on the 191 acres held to northeast of the field.

Evidences are that deep drilling will take the place of the 3000-foot depths at Boling following the failure of the discovery sands in this field to come up to first expectations. Drilling to the west and north of the discovery well has now reached 800 feet lower than the first producer. Vacuum Oil Company has carried its Hooper No. 1 to 4236 feet with no show of oil. A gas was encountered at 4112 feet. This well is approximately 2000 feet northwest of the center of activity. The Texas Company cored an oil sand this week in its No. 7 Taylor at 3854 feet, and was preparing to go deeper in the No. 5, which tested water at 3663 feet. Sinclair started bailing its No. 3 Taylor with a good show at 3019 feet, and was drilling at 3868 in the No. 4 well. No new locations have been made within the past month near the first point of active drilling due to the failure of wells there to find big pay.

At Nash dome, Brazoria County, where Rycade Oil Corporation opened first production, January 3, 1926, with a 500-barrel well in its Nash 5 at 4146 feet, the company is doing some deep drilling. The Wisdom 2, which was given up as a failure November 3, at 3600 feet, is being drilled deeper. The hole has been reamed down and is now nearing the 3700-foot mark. Flessner No. 2, an offset to Nash 5, was 3832 feet at the opening of this week.

At Big Hill, Jefferson County, the Houston Oil Company is resuming drilling in its Pipkin Davis 1, after temporarily abandoning the hole October 20, at 2157 feet. The Gulf Production Company is drilling at 4100 feet in its Burrell 1 wildcat at Fannette dome, Jefferson County.

H. H. Hancock and L. B. Pruitt, North Texas operators, are starting the first of three deep tests five miles east of Brenham, Washington County, which will be carried to 5000 feet unless pay is obtained at a higher level.

Rycade Oil Corporation lowered the depth record of production in the Texas Gulf Coast early in March by completing its Cow Bayou C-1 at Orange at 4890 feet, more than 200 feet deeper than former Orange pay sands. The well came in for 500 barrels of oil and 3,000,000 cubic feet of gas. The gas pressure in the well was flowing with such a strong force that it blew a hole in a steel tank where operators attempted to save the gas. Other wells will doubtless be taken to this depth on the strength of this performance.

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Say you saw it in The OIL WEEKLY

Pennsylvania Formation May Hold Utah and Colorado Future

Government geologists make study of section that is to have big play this summer

THE exploratory campaign for oil carried on in 1925 in the Rocky Mountains resulted in an outstanding discovery early in December, when a well on the Cane Creek dome, near Moab, Utah, began producing oil. This discovery suggests that in parts of southeastern Utah and southwestern Colorado notable quantities of oil may be obtained from the Pennsylvanian formation that now yields oil at Cane Creek and possibly from younger rocks in which oil may have accumulated by upward migration. Because of these possibilities it seems worth while to summarize briefly the results of a reconnaissance study of this region that was made during the summer of 1925, by W. T. Lee and W. W. Boyer, of the Geological Survey, Department of the Interior, and also the results of an examination of the San Rafael Swell by James Gilluly, of the Survey.

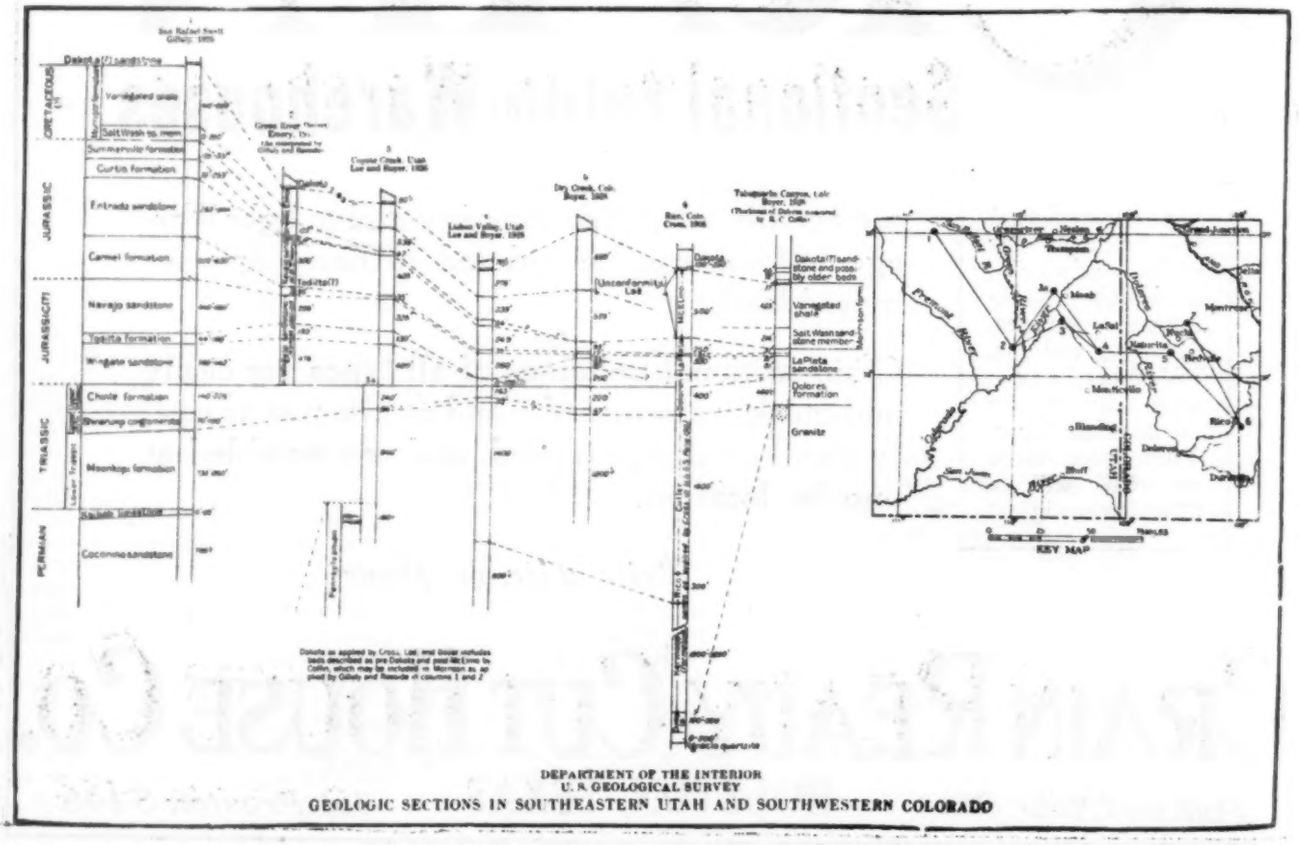
From information gathered by these field studies and from data already made available by previous geologic investigations, it seems probable that conditions similar to those recently found near Moab exist at other points in Utah south of the Denver and Rio Grande Western Railroad and east of Green River (or east of the 110th meridian), and also in the adjacent part of Colorado south of the Uncompahgra Plateau.

Sedimentary Rocks

The rocks exposed in southeastern Utah and southwestern Colorado that are of present interest to the oil producer range in age from Pennsylvanian to early Upper Cretaceous. These rocks have been reviewed and described by Cross in volume 15 of the Journal of Geology, and a more recent and detailed description of the formation has been given by Coffin in Bulletin 16 of the Colorado Geological Survey. The facts noted by Lee and Boyer confirm in part this earlier work, although they suggest a need for the modification of some interpretations. The formations now recognized in the area are shown in the accompanying chart and are described below in order of deposition from the earliest to the latest.

Pennsylvanian Rocks

Near RRico, Colorado, the Hermosa formation is 1800 to 2000 feet thick. Its lower part consists of black bituminous shale and limestone, and these beds are overlain by 30 feet of gypsum and 250 feet of rocks which are nowhere exposed to view but which may contain soluble materials such as rock salt. A considerable thickness of salt, gypsum, black shale, and limestone was penetrated by the lower part of the Cane Creek well, and beds of salt and gypsum that contain petroliferous limestone are exposed in the Paradox Valley and other anticlines or have been penetrated by wells drilled on these folds. About 3000 feet of interbedded salt, gypsum and bituminous shale are present beneath Paradox Valley, but this apparent thickness may be local and abnormal and may have been induced by flowage of these plastic beds. Some potash occurs in the salt beds of the region, and the possibility that commercially valuable quan-



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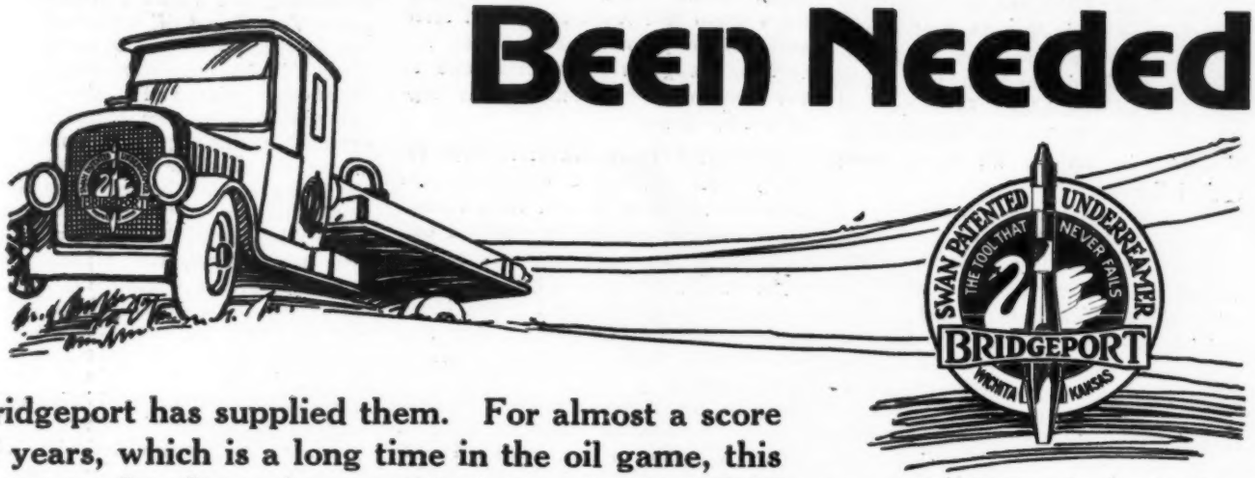

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tities of potash may be present warrants the collection and testing of samples of the salt-bearing strata.

Beds of Pennsylvanian age yield the oil found near Moab and are tentatively regarded as equivalent to part or all of the Hermosa formation of southwestern Colorado and to the lower part of the Goodridge formation of the San Juan Valley, as described by Woodruff in Bulletin 471 of the Geological Survey.

Permian Rocks

At its type locality in southwestern Colorado the Rico formation, of Permian (?) age, consists of 300 feet of reddish arkosic sandstones, together with some shales, conglomerates, and thin limestones, and resembles in thickness and lithology the 380 feet of strata that underlies the Conconino sandstone in the San Juan Valley, which is tentatively referred by Miser to the Supai formation. In the upper part of the Goodridge formation predominantly red strata, not greatly unlike the overlying Supai (?), contain a pelecypod fauna and in this respect resemble also the Rico formation of Colorado —facts which may indicate that the upper part of the Goodridge and possibly part of the Supai (?) are equivalent to the Rico formation. Beds of Rico age may be present under cover in many places in southwestern Colorado and southeastern Utah, although apparently they eroded from at least the more pronounced uplifts, such as the Uncompahgre Plateau.

The Coconino sandstone, of Permian age, is a conspicuous formation west and north of the San Juan oil field, but it thins out eastward and is absent at Bluff and Moab. In contrast with this decrease in thickness, the sandstone that forms the natural bridge southwest of Monticello and is possibly equivalent to the Conconino is more than 1000 feet thick near the bridge and is about 1000 feet thick near the mouth of Green River.

Triassic Rocks

The rocks of unquestioned Triassic age in the San Juan River region of southeastern Utah comprise, in ascending order, the Moenkopi formation, Shinarump conglomerate, and Chinle formation. Beds of variable appearance and composition that belong to the lower part of the red-bed series lie unconformably on the Pennsylvanian rocks that are exposed near Moab. These beds are assigned by Cross and Coffin to the Cutler and Dolores formations. The upper part of the conglomeratic red beds, which constitutes the Dolores formation as the term was applied by Cross near Telluride, is correlated confidently with the Chinle formation of southern Utah, and the contact of this unit with the overlying Wingate sandstone, where that formation is present, furnishes one of the most convenient key horizons for stratigraphic tracing available in the area here described. The correlation of the lower part of these conglomerate red beds, in which petrified wood and fossil bones and teeth are commonly found, is, however, uncertain, though it may correspond to the Shinarump conglomerate, as suggested by Cross.

The Cutler formation at its type locality near Ouray, Colo., intervenes between the Dolores and Rico formations and consists in part of red calcareous sandy shales that may correspond to the gypsum-bearing beds which are locally exposed in the Moab region. Some of the gypsum beds that overlie the Pennsylvanian limestones near Moab, may, however, actually belong to the Rico formation, whereas a part of them, at least, are believed to be referable to the Triassic Moenkopi formation. Possibly the marine gypsum-bearing Moenkopi of southern Utah may represent the seaward equivalents of the Cutler conglomerates.

The beds between the Chinle and Hermosa (?) formations of southeastern Utah are markedly variable in thickness and may be divisible into several formations, one or more of which have been extensively eroded during pre-Chinle time. Near the road from Valley City to Moab, just north of Colorado River, the interval between the Chinle and the Hermosa (?) is occupied by 950 feet of conglomerates with which are interbedded some shales, sandstones, and flinty limestones. The lowest of these conglomerate beds contains fossil wood which resembles that of the Chinle. In Lisbon Valley similar beds are 1400 feet thick. In Salt Valley, eight miles north of Castleton, and in Paradox Valley, Colo., partial measurements show respectively 1300 and 1200 feet of conglomeratic beds beneath a bed that appears to be the base of the Chinle, and the conglomerates in Paradox Valley contain fragments of fossil wood and fossil teeth similar to those in the Chinle.

The beds just described form the lower part of the Dolores and Cutler beds as mapped in Colorado by Coffin and were tentatively referred to the Permian by Cross. They are designated Carboniferous on the geologic map of Utah published with the Geological Survey's Professional Paper III, although fossil bones, teeth, and wood since found in them suggest that part or all of them should be referred to the Triassic.

Jurassic (?) Rocks

The rocks now tentatively assigned to the Jurassic and believed by Lee and Boyer to be undoubtedly Jurassic include in ascending order the Wingate sandstone, the Todilto formation, and the Navajo sandstone. These formations have not yielded fossils, but they compose a related group of beds that is overlain by beds which contain a marine fauna of Upper Jurassic age.

The Wingate is a great cliff-making sandstone, and its color suggested the name Vermilion Cliff sandstone, which has been applied to it by some geologists. It lies unconformably on the Chinle formation and is the oldest of the probable Jurassic formations represented in this region. In some places, where the Todilto is not recognized, the Wingate and the overlying Navajo sandstone are not clearly separable. Over wide areas, however, where the two are distinct, the Wingate sandstone maintains a relatively constant thickness. It is cross-bedded but less conspicuously so than the Navajo, and it usually breaks into columnar blocks on weathering. It is about 500 feet thick in southeastern Utah and is somewhat thinner in eastern Utah, where it has been called the "upper Dolores sandstone" by Cross and others. It persists eastward into the vicinity of Grand Junction, Colo., where it is about 300 feet thick, but is absent farther south. Near Telluride the basal La Plata or Navajo sandstone rests unconformably on the conglomerate beds of the Dolores formation, which are correlated with the Chinle formation. In other places in western Colorado probable representatives of the Wingate have been included in the Dolores formation.

This eastward thinning and final disappearance of the Wingate sandstone may be due to nondeposition or to lateral change in lithologic character or to erosion after the sandstone was laid down.

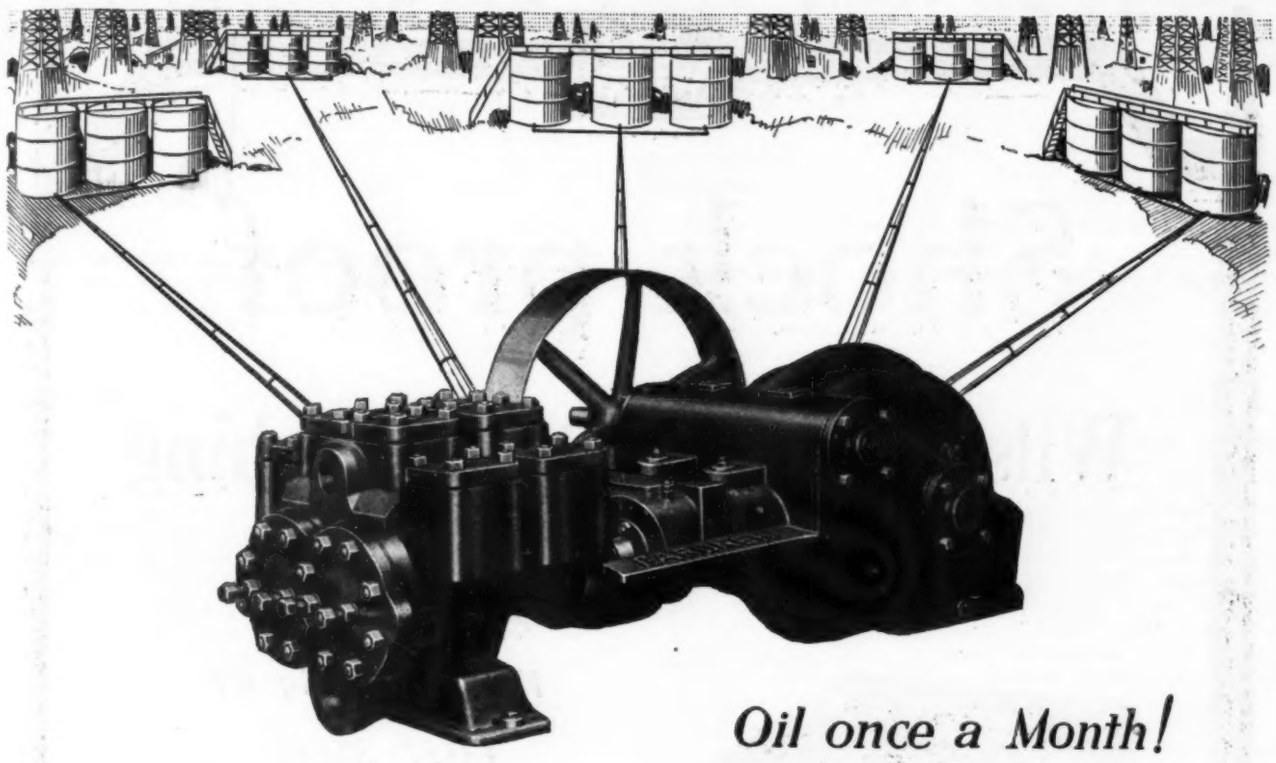
At every exposure that was examined the Wingate sandstone gives place abruptly at its base to the Chinle beds. The contact is irregular, as if it represented an old surface of erosion. This irregular contact and the irregularity in thickness of the underlying Chinle beds seem to indicate an unconformity of wide extent.

The rocks here called the Todilto formation consist of platy red sandstones that contain thin layers of shale. Pebble beds are found in the formation in a few places. In southeastern Utah the Todilto does not differ conspicuously from the underlying Wingate sandstone. It is locally absent, and its maximum observed thickness is 200 feet.

The Navajo is a light-colored massive, strongly cross-bedded unfossiliferous sandstone. It seems to attain its maximum thickness in southern Utah, where it is about 1000 feet thick, and it thins toward the north and the east. Near Green River, Utah, it is little more than 300 feet thick, in southwestern Colorado it is less than 200 feet, and farther to the north and east it is still thinner.

The Navajo sandstone lies with ap-

(Continued on page 82)



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Garber Ends First Year as Deep Sand Area

By Roye Munsell
Staff Representative

Tulsa, Okla.—The news of large wells and increasing production which has featured Oklahoma field reports recently changed to general quietude and declining production during the past week.

Garber finished its first year as a deep sand pool with little to be anticipated in the way of new production.

The shallower Hoover, Layton and Tonkawa sands found at 2500 to 3600 feet, are known to contain some oil and a shallow drilling campaign is under way to explore these horizons there.

A total of 13 new locations were made during the past few days. The majority of the wells have as their objective the shallower sands. All together there are no less than 35 shallow tests being made. In addition, a dozen deep sand producers which have failed are being plugged back to one of these shallower sands.

Two new wells just completed are of interest to the possible shallow sand production at Garber. The Roxana Petroleum Corporation, Schroeder 25, SW 18-22-3w, topped the Hoover sand at 2720, and when drilled one foot in showed 240 barrels the first gauge.

The other new shallow producer, the Sinclair Oil and Gas Company, North Walker 37, NE 13-22-4w, found the Layton sand at 3570 feet and drilled three feet in, shot oil over the derrick before put under control.

It was just a year ago that Sinclair Oil and Gas Company completed the 4360-foot Siliceous lime discovery well, its Belveal 25, for an initial production of 2500 barrels.

Quite unlike many other deep Garber wells, even of a more recent date, the well is still producing. The total production to date has been some 406,000 barrels of high gravity oil.

The deep Siliceous lime discovery well turned an otherwise uneventful shallow producing area into one of the most picturesque pools in the Mid-Continent.

Operators working with the deep sand as almost their sole objective, developed a pool that several times appeared to all the world to be the most productive in the state.

The saline fluid sooner or later proved disastrous to the big wells, however. That is not to say, though, that Garber has not produced much oil. Quite to the contrary, its short, deep sand history has been a full year of good wells, not a few of which were nothing short of phenomenal. The greatest high gravity deep sand producer which came in for 1200 barrels initial was drilled there.

Since the drilling of the deep sand discovery well operators have been primarily interested in Siliceous lime production. Most everything above that horizon was passed up in the haste to explore the deeper level. Much future development at Garber will, therefore, take the form of shallow re-drilling.

Widely Separated Areas to Get Bulk Of Kansas Drilling This Year

Tulsa, Okla.—Kingman and Lyon counties, two widley separated Kansas areas, will be important developments of future drilling in Kansas. Lyon County will see the opening of new production from the Bartlesville sand or the damping of the explorers' interest, for a time at least.

There are no less than 43 wildcat tests being drilled there. With few exceptions, they were located in an effort to find extensions of the trend production of Greenwood County, immediately to the south, which supplies almost half of the total oil output of Kansas.

The question as to where the trends centered in Greenwood County have their ends is far from settled. Operators are bewildered as to which way will lead them out of the labyrinth.

Many dry holes give mute evidence of the much good money that was spent in the Flint Hills of Kansas for trend production. Three years ago every cautious operator removed his empty casing along with himself, with the appropriate words to the effect that he was through.

The 42,000 barrels of daily production are further evidence of the wildcatters' persistence and faith in the country.

Little more than the similarity of sands in occasional wells, sometimes far removed, and the hope of finding prolific trends have kept several operators hard at it.

They have already pushed outside of Greenwood County, to the north in Lyon, to the west in Butler and farther south into Cowley. Just now Lyon County, with a small amount of production just across the Greenwood-Lyon county line, is the center of interest with its 43 tests going.

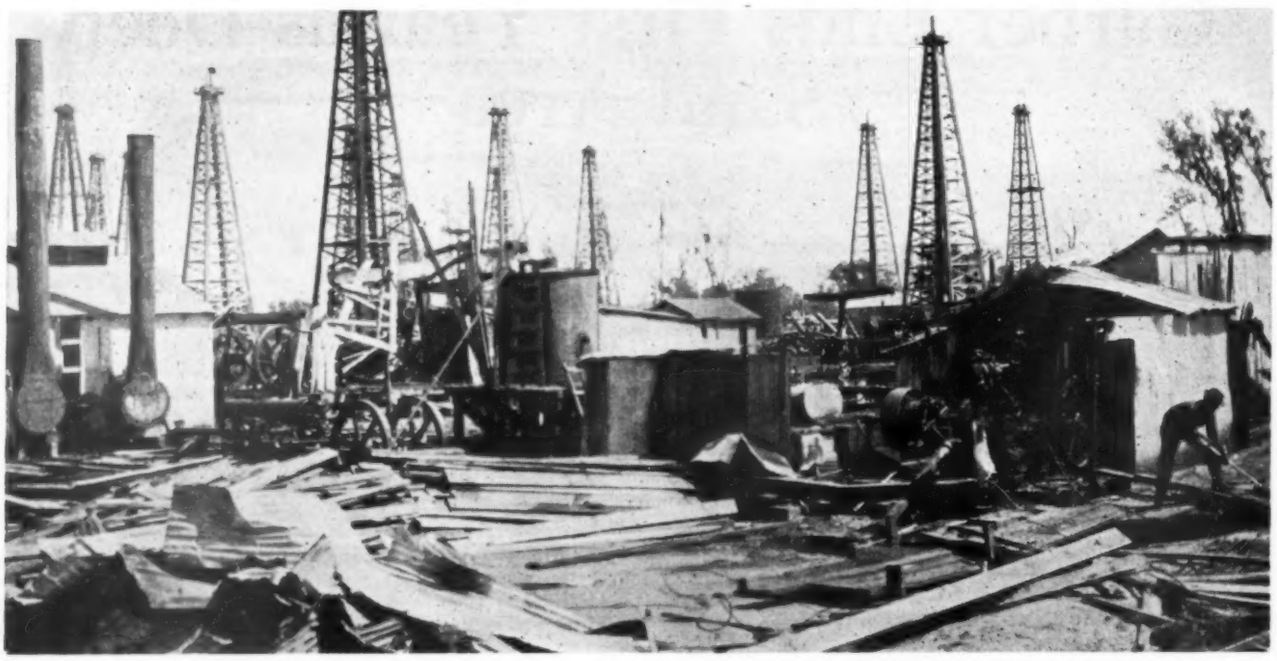
While the objective in this instance is shallow production, in West Kansas, in the neighborhood of Kingman County, deep production is sought. The effort there is to determine if the deepest producing horizon ever found in Kansas, which was discovered by D. P. Fleeger and the Carter Oil Company in Kingman County, is to be commercially productive. The discovery well in NEc SE 16-30-7w, Kingman County, found an unidentified pay sand at 3892 feet.

The most recent location there to test the "Fleeger" sand is that by the Manhattan Oil Company and others in Long No. 1, C SW 27-26-8, Reno County, nine miles northwest of the Carter - Fleeger Kingman discovery well.

In Kingman County, T. B. Slick, Herman 1, NW 15-27-7, east offset to the discovery well, is drilling below 2880 feet. Allison and Fitzwilliams and the Gypsy Oil Company, Wilkinson No. 1, SE NW NW 25-27-7, three miles southwest of the discovery well, is drilling below 2955 feet.

Other operations in the same district are: Cassody Oil Corporation, Yeoman 1, C SE 35-28-7, drilling at 1550 feet; Vickers Petroleum Company, Kemig 1, C NW 35-30-9, rig on ground; Harwood and Winters, Lindholm 1, C NE 22-28-5, rigging up; Phillips Petroleum Company, McKenna 1, C NW 16-28-8, drilling at 1500; Phillips Petroleum Company, Hample 1, C SE 9-27-6, drilling 400 feet; Phillips Petroleum Company, Gillen 1, C NW 21-29-9, location; J. A. Crawford and Company, Beshore 1, NE NE NW 21-28-5, drilling 1000 feet; Marland Oil Company, Padgett 1, NE NE SW 11-28-6 location; Sam Jarvis, No. 1, SE SE NE 29-30-10, location.

Besides these, there are two operations in Reno County and five in Barber County which will go to 4000 feet unless production is found at a less depth.



Wreckage at South Liberty following recent wind storm

Coastal Fields in Shape Again After Storms

Houston, Texas.—Damage resulting from two hurricanes coming within a period of one week to coastal fields recently is practically history, with the exception of the replacement of a small percentage of wrecked derricks, due to the co-operation of supply companies and power companies with the producers of the stricken section. Production for the week ending April 3, showed a temporary loss of slightly more than 3000 barrels, most of which was probably due to damage wrought to pumping wells and equipment, causing occasional shutdowns for a day or more.

Production for the past week, however, registers no substantial loss over the previous week, and due to extensive field work and many good completions during the week, which hindered to no appreciable extent, indications point to an upward turn in the Gulf Coast daily average for the coming week.

Oil field electrification, which is in use throughout most of the coastal fields, is shown to have figured in no mean proportions in the hurried reconstruction of the damaged area, and the accompanying snap shots taken shortly after the March 25 and March 30 wind storms, serve to illustrate the short time taken in placing the wells back on production in that practically none of the electrical equipment was materially damaged.

Due to the modern construction of electrical equipment serving the fields with power, little wrecking was done in the way of putting power systems out of order, and that little wreckage was placed within a short period back into use through systematized work now serving the modern equipped fields. Service to Spindletop and Orange, where much of the damage was wrought, was restored within four hours. Following the March 25 storm the Orange field is reported to have been served with pumping power within three hours and the South Louisiana fields within two hours.

Some 700 wells in the coastal country are reported as being in the electrified class at present. Damage done to power at these wells is seen to have been mostly the piling of debris over the equipment around the leases. Only two breaks were found in the main power lines outside of the fields, these reported broken by flying debris striking the wires.

Production heads, field men, representatives of the Eastern Texas Electric Company, which supplies most of the power to coastal fields, and supply men worked hand in hand in every field stricken by the hurricanes during the short time of rapid reconstruction in the best of co-operative spirit to replace damaged leases on production.

General Electric Motor and transformer on the Sun Company's Gunstream No. 2 in the Orange Field which escaped damage despite the fact that practically the entire field was wrecked by recent wind storms

Los Cerritos Field Production Decreases

Long Beach, Cal.—Production in the Los Cerritos (Northwest) Extension of Long Beach field continues a downward trend. Production there decreased more than 1000 barrels during the past week, lowering the daily average output of the field to 14,225 barrels.

The proportion of wells which come in without agitation to those which have to be put on the pump immediately after completion is decreasing. Out of six completions this week, five had to be put on the pump immediately after completion.

Most important among the wells looked to for an extension of the new area is that of A. J. Playter, which was completed this week. While the well has not yet been put on production, it is expected to make less than 100 barrels. Total depth of the well, which is located in the northeastern extreme of the field, is 4425 feet.

Contrary to local press reports, outlook for the United Oil Company's Taylor 2 is not encouraging. The well has drilled to little below 5100 feet, but nothing of particular significance has been developed.

Completions at Long Beach this week include the following wells: C. J. and M. Oil Company's Cerritos 1, made 250 barrels at 4375 feet. The California Petroleum Corporation's Fields 18 made 50 barrels from 4530 feet. A. J. Delaney's Los Cerritos 29 made 200 barrels from 4400 feet. The Rainbow Petroleum Company's Cerritos 8 made 160 barrels from 4490 feet. The Julian Petroleum Corporation's Patton 1 made 150 barrels from 4425 feet. Edward Herwick's Herwick 25 made 50 barrels from 4495 feet.

Trail of Hard Luck For Cherokee Test

Jacksonville, Texas.—A trail of hard luck that bids fair to take high honors from the Mid-Continent driller that reported everything lost in his wildcat test but the boilers has been the experience of the A. E. Humphreys-J. A. Colliton Company in drilling a deep test on the P. O. Clapp farm, Cherokee County, Texas. The latter test is being drilled 300 feet south of a test that threatened to make a high gravity oil strike in Central East Texas several years ago before being junked, and only a comparatively short period remains to save the lease by getting production.

The Humphreys-Colliton Company's Clapp test was spudded with rotary early this year, and the first trouble developed when a cone was lost from rock bit while drilling in broken chalk at 3345 feet. The cone was sidetracked, but fell back into the hole at frequent intervals until a depth of 3375 feet had been reached. A core drill was then used to try and make a permanent sidetrack job, but it was lost in the hole. Fishing tools were then engaged to try and recover the core drill, and they became lodged in the hole and could not be pulled. A small shot was then placed to dislodge the fishing tools, and in coming out of the hole with drill pipe a 6⅝-inch whipstock dropped in the hole. This whipstock had been used in trying to sidetrack. A rock bit was then sent down, and it stuck by the side of the whipstock. In trying to withdraw the rock bit the drill pipe parted two thribles down. The crew then went in with an overshot and recovered lost drill pipe, which was found to be kinked from top to bottom. Operations were temporarily suspended late last week, pending the arrival of a new string of four-inch drill pipe.

J. A. Colliton and associates of California have been trying for a well in this area for about five years, having junked their first attempt; bailed 38 gravity oil from hole in second test after drilling through pay around the 3300-3500 foot level and junking later at 4300 feet; third attempt was junked at 3030 feet in December, 1925; and the fourth try is now being made jointly with Col. Humphreys. Humphreys-Colliton Company's Ousley 1, located in the J. Culp survey, was spudded last week, and must have production by the first week in August, 1926 in order to save lease on 1200 acre tract, located near the Colliton area. The latter test is located in a typical East Texas swamp, and a foot bridge about one-quarter of a mile in length is the only means of approach to the steel derrick.

The Sinclair Crude Oil Purchasing Company is credited with having made arrangements to take and purchase any crude that may be developed by Col. Humphreys and his associates in this area. Sinclair's nearest pipe line is at Mexia.

Takes Well Deeper and Finds 650 Feet of Sand

Los Angeles, Cal.—As a result of a decision last week to drill its Vickers 2 deeper, the Associated Oil Company has discovered 650 feet of sand in its deep test at Baldwin Hills-Inglewood oil field. On a production test the well proved itself capable of yielding 1500 barrels of oil.

Previously the well was drilled to 2986 feet, and 425 feet immediately above this depth was composed of oil bearing formation, capable of yielding 1400 barrels of 23.6 degree Baume gravity oil per day. The present depth of the well is 3210 feet.

Notwithstanding the phenomenal "find," the Associated will not develop its holdings in the Baldwin Hills field, due to the fact that the oil is worth more to the organization in the ground than in storage.

The Standard Oil Company of California brought in a wonderful well in the Baldwin Hills-Inglewood field this week when its Los Angeles Investment Company's 1-42 came in from 2392 feet, making 1400 barrels of 20 degree Baume gravity oil.

Mechanical School Show to Feature Testing Machine

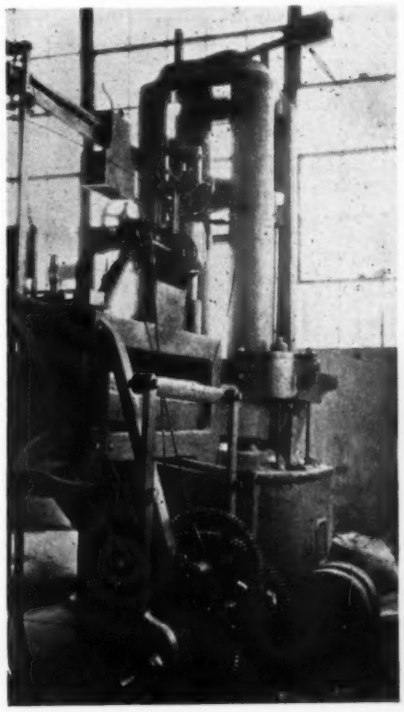
Houston, Texas.—As a step toward the more practical side of its purpose the Rice Institute School of Engineering is putting on an engineering show, April 23-24, which will be devoted chiefly to the exhibition and demonstration of equipment and the work of the mechanical laboratory of the school, today classed as one of the most advanced mechanical schools in the South. The show is being staged and handled by the students of engineering at the Institute.

Among the machinery equipment to be exhibited at the show, which will be featured most is the new Tinius Olsen testing machine. Because of the installation of this machine the Institute is receiving numerous calls from commercial firms to test the strength of various products for determining whether or not such products are up to standard requirements.

This machine, which is illustrated in the accompanying photograph, weighs some seven tons, and for this reason is not very easily transported. The biggest feature is its automatic balance. Where on the old models it was necessary to have an operator continually balancing the increasing pressure by moving the balance weight by hand, the new machine automatically shifts the weight—thus eliminating the customary labor and attention.

The Olsen machine can handle, in either a tension or a pressure test, a column 16 feet in height or a beam of a 20-foot length.

Tensile specimens will be furnished by the S. M. Jones Company at the show.



Olsen Testing Machine

32190

CRUDE OIL PRICE QUOTATIONS

Crude Price Changes

April 8.—Effective at opening of market today, Plains Pipe Line Company resumed posting price on Texas Panhandle crude, and added five cents per barrel to each gravity grade already posted by other buyers, except for crude North of Canadian River which remained unchanged.

April 9.—Magnolia Petroleum Company and Kay County Gas Company met crude price increase in Texas Panhandle.

Current Postings

EASTERN STATES

	April 14 1926
New York Transit	3.65
Bradford District	3.65
National Transit	3.55
Southwest	3.55
Eureka	3.50
Macksburg	3.30
Gains	2.95
Somerset medium	2.55
Somerset light	2.70
Cabell	2.50
Ragland	1.40
Corning	2.35

CENTRAL STATES

Illinois	2.12
Indiana	2.00
Lima	2.23
Plymouth	1.65
Princeton	2.12
Waterloo	1.10
Wooster	2.35

WESTERN KENTUCKY

Posted by Indian Refining Company for crude from Allen, Warren, Franklin, Davies, Barren, Cumberland and Monroe Counties

36 and above	2.05
33 to 35.9	1.95
32.9 and below	1.85

MID-CONTINENT

	Prairie Sinclair* Texas Gulf	Magnolia
Below 28		1.20
28 to 28.9 gravity	1.40	1.40
29 to 29.9 gravity	1.48	1.48
30 to 30.9 gravity	1.56	1.56

	April 14 1926
31 to 31.9 gravity	1.64	1.64
32 to 32.9 gravity	1.72	1.72
33 to 33.9 gravity	1.80	1.80
34 to 34.9 gravity	1.88	1.88
35 to 35.9 gravity	1.96	1.96
36 to 36.9 gravity	2.04	2.04
37 to 37.9 gravity	2.12	2.12
38 to 38.9 gravity	2.20	2.20
39 to 39.9 gravity	2.28	2.28
40 to 40.9 gravity	2.36	2.36
41 to 41.9 gravity	2.44	2.44
42 to 42.9 gravity	2.52	2.52
43 to 43.9 gravity	2.60	2.60
44 to 44.9 gravity	2.68	2.68
45 to 45.9 gravity	2.76	2.76
46 to 46.9 gravity	2.84	2.84
47 to 47.9 gravity	2.92	2.92
48 to 48.9 gravity	3.00	3.00
49 to 49.9 gravity	3.08	3.08
50 to 50.9 gravity	3.16	3.16
51 to 51.9 gravity	3.24	3.24
52 and above	3.32	3.32

*Sinclair's postings include no oil above 44 gravity.

TEXAS PANHANDLE

Posted by Magnolia, Kay County Gas Company and the Plains Pipe Line Company, April 14.

Below 31 gravity	1.20
31 to 33.9	1.35
34 to 36.9	1.55
37 to 39.9	1.70
40 and above	1.75

NORTH AND CENTRAL TEXAS

Ranger, North Texas, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie, Moran, Somerset and Big Lake crude

	Somerset (Grayburg)	Humble O. & R. Co. Texas Co.*
28 to 28.9 gravity	1.15	1.40
29 to 29.9 gravity	1.25	1.48
30 to 30.9 gravity	1.31	1.56
31 to 31.9 gravity	1.39	1.64
32 to 32.9 gravity	1.47	1.72
33 to 33.9 gravity	1.55	1.80
34 to 34.9 gravity	1.63	1.88
35 to 35.9 gravity	1.71	1.96

	April 14 1926
36 to 36.9 gravity	1.79	2.04
37 to 37.9 gravity	1.87	2.12
38 to 38.9 gravity	1.95	2.20
39 to 39.9 gravity	2.01	2.28
40 to 40.9 gravity	2.07	2.36
41 to 41.9 gravity	2.13	2.44
42 to 42.9 gravity	2.19	2.52
43 to 43.9 gravity	2.25	2.60
44 to 44.9 gravity	2.31	2.68
45 to 45.9 gravity	2.31	2.76
46 to 46.9 gravity	2.31	2.84
47 to 47.9 gravity	2.31	2.92
48 to 48.9 gravity	2.31	3.00
49 to 49.9 gravity	2.31	3.08
50 to 50.9 gravity	2.31	3.16
51 to 51.9 gravity	2.31	3.24
52 and above	2.31	3.32

Corsicana Heavy $1.15 per barrel, posted by Magnolia.

*Gulf Coast light oil is included in this schedule, posted by The Texas Company.

SOUTH TEXAS

Mirando (Texpata)	1.15
Mirando (Magnolia)	1.15

GULF COAST

Grade "A"	1.50
Grade "B"	1.25
Grade "B"*	...
Below 25 gravity	1.25
25 to 25.9 gravity	1.30
26 to 26.9 gravity	1.35
27 to 27.9 gravity	1.40
28 to 28.9 gravity	1.45
29 to 29.9 gravity	1.50
30 and above	1.55

*Posted by Humble Oil and Refining Company on all oil not meeting "A" grade requirements at Goose Creek, Hull, Liberty, West Columbia, Orange and Pierce Junction.

LULING

Based on Contract	1.20

WYOMING-MONTANA

Wyoming

Byron	2.25
Ferris	1.53
Elk Basin	2.15

(Continued on page 58.)

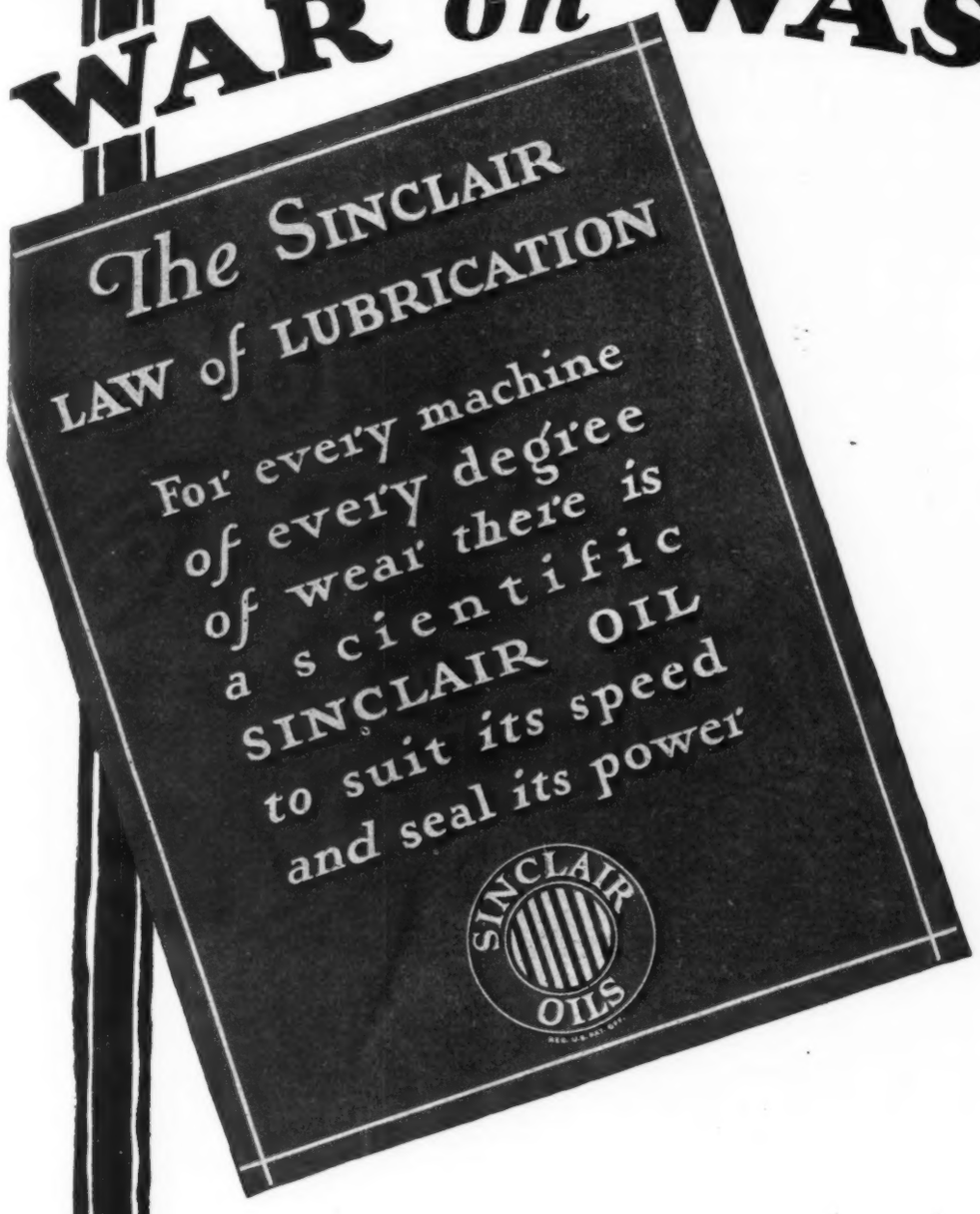
California Crude Oil Prices at the Well

SAN FRANCISCO, CALIFORNIA, MARCH 11, 1926

Effective March 11, 1926, following are the current prices offered by Standard Oil Company for crude oil at the well:
(Price per barrel of 42 gallons in fields indicated)

Gravity (degrees)	Signal Hill	Huntington Beach	Inglewood	Olinda-Brea Canon	Rosecrans-Dominguez	Torrance	Richfield	Whittier	La Habra	Montebello	Coyote Hills	Santa Fe Springs	Newhall	Midway-Sunset Elk Hills	McKittrick	Lost Hills	Coalinga	Kern River	Wheeler Ridge
14-14.9	$ .85	$ .85	$ .85	$ .85	$ ..	$ .85	$ .85	$ .85	$ .85	$ .85	$ .85	$ ..	$ .75	$ .75	$ .75	$ .75	$ .75	$ .75	$ .75
15-15.9	.87	.87	.87	.87	..	.87	.87	.85	.85	.85	.85	..	.75	.75	.75	.75	.75	.75	.75
16-16.9	.90	.90	.90	.90	..	.90	.90	.85	.85	.85	.85	..	.75	.75	.75	.75	.75	.75	.75
17-17.9	.94	.94	.94	.94	..	.94	.94	.85	.85	.85	.85	..	.75	.75	.75	.75	.75	.75	.75
18-18.9	.98	.98	.98	.98	..	.98	.98	.86	.86	.86	.86	..	.75	.75	.75	.75	.75	.75	.75
19-19.9	1.04	1.04	1.04	1.04	..	1.04	1.04	.87	.87	.87	.87	..	.75	.75	.75	.75	.75	.75	.75
20-20.9	1.10	1.10	1.10	1.10	..	1.10	1.10	.89	.89	.89	.90	..	..	.82	..	.82	.79	..	.78
21-21.9	1.16	1.16	1.16	1.16	..	1.16	1.16	.91	.91	.91	.98	..	..	.90	..	.90	.86	..	.81
22-22.9	1.22	1.22	1.22	1.22	..	1.22	1.22	.94	.94	.94	1.06	..	..	1.00	..	1.00	.93	..	.85
23-23.9	1.28	1.28	1.28	1.28	..	1.28	1.28	..	..	.97	1.14	..	..	1.11	..	1.11	1.00	..	.89
24-24.9	1.34	1.34	1.34	1.34	1.34	1.34	1.34	..	..	1.01	1.22	1.02	..	1.22	..	1.22	1.07	..	.93
25-25.9	1.40	1.40	1.40	1.40	1.40	1.40	1.40	..	..	1.05	1.30	1.08	..	1.33	..	1.33	1.14	..	.97
26-26.9	1.46	1.46	1.46	1.46	1.46	1.46	1.46	..	..	1.09	1.38	1.16	..	1.44	..	1.44	1.21	..	1.01
27-27.9	1.52	1.52	1.52	1.52	1.52	1.52	1.52	..	..	1.13	1.46	1.24	..	1.55	..	1.55	1.28	..	1.05
28-28.9	1.58	1.58	1.58	1.58	1.58	1.58	1.58	..	..	1.17	1.54	1.32	..	1.66	..	1.66	1.35	..	..
29-29.9	1.64	1.64	..	1.64	1.64	..	1.64	..	..	1.21	1.62	1.40	..	1.77	..	1.77	1.42	..	..
30-30.9	1.70	1.70	..	1.70	1.70	..	1.70	..	..	1.25	1.70	1.48	..	1.88	..	1.88	1.49	..	..
31-31.9	1.76	1.76	..	..	1.76	..	..	..	..	..	..	1.60	..	1.99	..	1.99	1.56	..	..
32-32.9	1.84	1.84	..	..	1.84	..	..	..	..	..	..	1.72	..	2.10	..	2.10	1.63	..	..
33-33.9	..	..	..	..	1.92	..	..	..	..	..	..	1.84	..	2.21	..	2.21	1.70	..	..
34-34.9	..	..	..	..	2.00	..	..	..	..	..	..	1.96	..	..	..	2.32	1.77	..	..
35-35.9	..	..	..	..	2.08	..	..	..	..	..	..	2.08	..	..	..	..	1.84	..	..
36-36.9	..	..	..	..	2.16	..	..	..	..	..	..	2.16	..	..	..	..	..	..	..
37-37.9	..	..	..	..	2.24	..	..	..	..	..	..	2.24	..	..	..	..	..	..	..
38-38.9	..	..	..	..	2.34	..	..	..	..	..	..	2.31	..	..	..	..	..	..	..
39-39.9	..	..	..	..	2.44	..	..	..	..	..	..	2.44	..	..	..	..	..	..	..
40-40.9	..	..	..	..	2.54	..	..	..	..	..	..	..	..	..	..	..	..	..	..
41-41.9	..	..	..	..	2.64	..	..	..	..	..	..	..	..	..	..	..	..	..	..
42-42.9	..	..	..	..	2.74	..	..	..	..	..	..	..	..	..	..	..	..	..	..

WAR on WASTE!



THE motorist, in buying oil, is entitled to correct lubrication for his engine—and it is the dealer's responsibility to see that he gets it. Sinclair feels that responsibility—and therefore manufactures Opaline Motor Oil to sell according to the Sinclair Law of Lubrication—a different grade of Opaline Motor Oil "for every degree of wear" of the engine.

This means correct lubrication and economical transportation. It is the motorist's protection against *Waste of Power* and wearing of parts. This is the Sinclair dealer's method of making more satisfied customers.

SINCLAIR REFINING COMPANY
45 Nassau Street, New York
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SINCLAIR OPALINE MOTOR OIL
REG. U. S. PAT. OFF.

1916-26—TEN YEARS OF MANUFACTURING AND DISTRIBUTING PETROLEUM PRODUCTS OF QUALITY

ENTIRE CONTENTS COPYRIGHTED, 1926, BY SINCLAIR REFINING CO.

Say you saw it in The OIL WEEKLY

AVERAGE DAILY PRODUCTION FOR U.S.

United States Daily Average Production by Weeks

Figures below are taken from the complete revised estimates of the AMERICAN PETROLEUM INSTITUTE except for the current week, which are advance estimates issued by the A. P. I. and are subject to revision:

Week Ending	Oklahoma	Kansas	Texas (Outside Gulf Coast)	Gulf Coast	North Louisiana	Arkansas	Eastern States	Rocky Mountain	California	United States Total
January 2, 1926	463,500	102,850	276,700	90,250	44,950	196,050	103,500	105,350	633,000	2,002,250
January 9	449,750	99,950	261,700	88,100	44,200	184,150	101,000	105,950	629,000	1,963,800
January 16	447,750	100,400	258,650	88,750	43,500	184,250	100,500	104,300	619,500	1,947,600
January 23	442,450	98,400	255,300	93,050	43,900	182,000	100,500	99,700	613,000	1,928,350
January 30	443,400	99,050	248,550	91,300	43,400	159,500	99,500	96,200	612,000	1,892,900
February 6	445,750	100,650	246,150	91,550	44,300	171,650	99,500	98,700	608,000	1,906,250
February 13	449,000	101,250	243,600	90,950	43,400	170,150	99,000	98,650	606,500	1,902,500
February 20	450,000	102,600	243,100	90,100	44,600	169,900	99,000	99,950	603,500	1,902,750
February 27	455,400	103,250	251,100	93,600	48,150	167,000	98,500	96,350	603,000	1,927,050
March 6	453,150	103,950	258,100	90,850	49,450	163,900	98,000	103,900	599,000	1,920,300
March 13	452,700	103,350	262,350	95,300	48,650	164,200	97,500	103,750	607,500	1,935,200
March 20	451,350	102,850	260,300	94,450	48,700	165,100	97,500	101,700	607,000	1,928,950
March 27	461,850	103,050	260,300	90,250	48,350	168,050	97,500	99,950	604,500	1,933,800
April 3	478,800	101,050	261,650	86,700	49,150	167,800	99,000	100,800	602,500	1,947,450
April 9	469,200	101,300	264,850	86,550	51,150	169,450	100,500	106,250	597,000	1,946,250
Increase over previous week	.....	250	3,200	.....	2,000	1,650	1,500	5,450	.....	.....
Decrease over previous week	9,600	.....	.....	150	.....	.....	.....	.....	5,500	1,200

Texas

NORTH TEXAS

	April 10	April 3
Burkburnett	12,350	12,550
Electra	16,200	16,500
Iowa Park and K-M-A	4,400	4,450
Wilbarger	12,650	12,900
Panhandle	7,600	7,200
Petrolia	450	450
Archer County	31,250	31,300
Others	1,300	1,300
Total	86,250	86,650

EAST CENTRAL TEXAS

Mexia	13,200	12,700
Currie	1,050	1,050
Richland	1,800	2,250
Corsicana-Powell	31,100	31,400
Wortham	9,600	10,200
Total	56,750	57,600

WEST CENTRAL TEXAS

Stephens County	13,500	13,200
Eastland County	6,000	5,950
Desdemona	2,650	2,050
Young County	7,850	8,850
Palo Pinto County	550	400
Callahan County	3,450	3,550
Shackelford County	2,750	2,100
Reagan County	35,300	31,900
Others	10,100	9,350
Total	82,150	77,350

SOUTHWEST TEXAS

Luling	22,650	22,600
Mirando	6,600	6,600
Somerset	2,250	2,250
Lytton Springs	7,300	7,700
Piedras Pintas	200	200
Others	700	700
Total	39,700	40,050
Tot'l Tex. (outside Gulf Coast)	264,850	261,650

GULF COAST

Goose Creek	8,900	8,850
Hull	18,250	18,400
Saratoga	1,300	1,300
Blue Ridge	600	650
Damon Mound	1,000	1,050
Batson	1,300	1,300
West Columbia	9,350	9,400
Humble	3,550	4,700
Pierce Junction	1,650	450
Sour Lake	3,850	4,000
Spindletop	2,100	2,200
Orange County	12,550	12,300
Edgerly	1,100	1,100
Evangeline	1,100	1,100
Vinton	6,300	6,250
Lockport	2,850	3,050
South Liberty	6,100	6,100
Big Creek	1,300	1,400
Boling	2,150	1,750
Others	1,250	1,350
Total	86,550	86,700

Oklahoma

North Braman	2,650	2,800
South Braman	10,000	10,400
Blackwell	3,900	4,000
Hubbard	1,850	1,900
Thomas	5,950	6,450
Tonkawa	38,800	40,100
Garber	37,850	47,550
Burbank	41,650	42,250
Osage (Outside Burbank)	32,850	32,900
Watchorn	2,500	2,500
Cushing	21,950	22,100
Yale Jennings	16,100	16,000
Davenport	18,550	19,600
Bristow-Slick	30,100	30,450
North Okmulgee	17,900	17,900
Lyons-Deaner	4,250	4,250
Stroud	2,400	2,400
Cromwell	18,550	18,350
Papoose	12,500	12,800
Wewoka	32,800	30,000
Duncan District	7,350	7,350
Graham	9,500	9,450
Fox	4,100	4,100
Healdton	14,900	14,900
Hewitt	12,150	12,200
Others	68,100	66,100
Total	469,200	478,800

California

Santa Fe Springs	50,000	50,000
Long Beach	103,000	106,500
Huntington Beach	44,000	43,500
Torrance	29,000	30,000
Dominguez	21,000	20,500
Rosecrans	19,000	19,500
Inglewood	51,000	51,500
Midway-Sunset	93,000	93,000
Others	187,000	188,000
Total	597,000	602,500

North Louisiana

Homer	5,800	5,850
Haynesville	10,300	10,400
Caddo Light	8,500	8,750
Caddo Heavy	2,150	2,150
De Soto-Red River	3,950	3,900
Elm Grove	600	600
Bellevue	2,500	2,500
Cotton Valley	8,100	8,050
Urania	9,250	6,950
Total	51,150	49,150

Kansas

	April 10	April 3
Florence-Covert	1,750	1,750
Peabody-Ebling	4,350	4,300
Eldorado-Towanda	13,900	13,750
Augusta-Fox Bush	4,800	4,750
Rainbow Bend	4,750	4,750
Russell	5,500	5,650
Greenwood County	40,800	41,450
Others	25,450	24,650
Total	101,300	101,050

Arkansas

El Dorado	7,450	7,650
Smackover Light	17,850	18,150
Smackover Heavy	133,750	134,350
Stephens	1,650	1,600
Nevada	3,000	2,100
Lisbon	5,750	3,950
Total	169,450	167,800

Mountain States

WYOMING

Salt Creek	52,950	52,450
Grass Creek	2,800	2,800
Elk Basin	600	600
Big Muddy	3,400	3,450
Lost Soldier	4,200	4,400
Rock River	2,950	3,050
Teapot Dome	1,350	1,400
Others	4,900	4,950
Total	73,150	73,100

MONTANA

Cat Creek	2,950	2,800
Sunburst	19,800	14,500
Total	22,750	17,300

COLORADO

Moffats (Craig)	2,850	3,100
Fort Collins	2,600	2,750
Florence	400	400
Others	500	450
Total	6,350	6,700

NEW MEXICO

Artesia	3,000	3,000
Hogback	450	500
Rattlesnake	550	200
Total	4,000	3,700
Total Rocky Mountains	106,250	100,800

EASTERN STATES

(Including Ill., Ind., Ky., Pa. Ohio, W. Va. and N. Y.)	100,500	99,000

PRODUCTION SUMMARY

East of Rockies	1,242,950	1,244,250
United States	1,946,200	1,947,450

Drilling Program Launched Northwest of Crane County Production

San Angelo, Texas.—A third wildcat oil producer in Crane County and near the Upton County line was in process of completion early this week with 1500 feet of 29.2 gravity oil in the hole from saturated lime pay at 2549-52 feet.

This discovery was made by F. P. Zoch and Marland Oil Company on the Hughes-Keith land, section 92, G. C. & S. F. survey, and about 2.6 miles north of the small flowing well brought in last February from lime at 2038-45 feet by the Independent Oil and Gas Company et al on the Len Taylor land, Sapp survey. The latter test is averaging 115 barrels daily by heads.

The other Crane County oil producer is that of Magnolia Petroleum Company and others on University land about 18 miles north of the Independent well. The Magnolia well is cleaning out cavings and lost swab at a total depth of 3030 feet, with a hole full of oil, and is to be deepened several feet before completing.

Wide Area

The three widely separated oil producers in Crane County are making oil from different horizons, and have not displayed evidence of being the forerunners of a big flush field, but the fact that oil is being uncovered in virgin territory in commercial quantities over a wide area is commanding attention. The Zoch well is located on a 160-acre tract owned 50-50 with Marland and is a part of a drilling block "farmed" out by Marland to Zoch to get the acreage tested. This well logged the top of the salt at 728 feet and the top of the big Dolomitic lime at 2340 feet with a surface elevation of 2594 feet. Showings of oil were scored in anhydrite at 1930-50 and 2270 feet, and the producing pay was encountered at 2549 feet. Only 635 feet of 10-inch casing was used in drilling to the top of the pay, and since a string of 8¼-inch casing has been set at 2549 feet, thereby indicating cheap drilling expense.

Simms Oil Company and Atlantic Oil Producing Company went together on a 50-50 deal in buying 1280 acres of checkerboard leases held by J. D. Collett-C. A. O'Keefe et al around the Magnolia producer on University land in upper Crane County, paying a total consideration of $500,000, of which $100,000 was cash, and the remaining $400,000 payable out of one-half of the oil produced. It is understood that Simms will develop the properties, while Atlantic will put in a gathering system to make tank car shipments of crude from the field, when production justifies, to its tanker terminals at Atreco, near Beaumont. The acreage obtained by Simms and Atlantic is located on all sides of the wildcat producer. Collett and O'Keefe et al retained four 80-acre tracts out of their 10-quarter sections of leases.

The trio of oil strikes made lately in the eastern part of Crane County has led to a big development campaign being launched in a general northwest direction across the upper part of the county into Ector and Winkler Counties. More than a dozen wildcat blocks are to be tested in a few months in the latter two counties, and the "play" is mostly based on possible production trend and especially cheap acreage, as surface conditions do not permit much geology.

Daily production in the Big Lake field increased to above 35,000 barrels during the past week with the completion of a 3470 barrel flowing well on an inside location drilled by Big Lake Oil Company's University 51. This well logged the top of the lime at 2797 feet, with a surface elevation of 2687 feet, and drilled 36 feet into the sandy-lime pay to a total depth of 2886 feet. The Big Lake Oil Company has 18 operations listed on its field report, with a number of these tests going to the 2400-foot sand.

Owen-Sloan Oil Corporation's Otis Chalk 1, located in section 113, block 29, and in southeast Howard County, bailed 65 barrels of 30.5 gravity oil during 24 hour gauge Monday after drilling sandy-lime pay at 1577-83 feet, with a surface elevation of 2430 feet. This well was drilled with a No. 30 star machine, and the west half of section 113 was donated to the operators for a 3000-foot test, or commercial production at a shallower depth.

The Texas Company's wildcat test on the J. S. Todd ranch, Crockett County, bailed small quantities oil from sandy-lime pay at 1900-10 feet, but failed to increase in production when deepened to 1935 feet.

Sulphur water, which is a discouraging marker when found around the oil producing horizon in West Texas fields, appeared in an unusually large number of tests during the past week, including the following: Marland Oil Company's Cowden 1, Crane County, hole full water, 3483 feet; Penn-Texas Development Company's Cowden 1, Crane County, hole full sulphur water, 3352 feet; Magnolia Petroleum Company's Shannon 1, Crockett County, sulphur water, 2540 feet; Choate-Henshaw & Marland Oil Company's Noelke 1, Upton County, flowing sulphur water, 2305 feet; Zoch & Marland's Ruhman 1, Upton County, sulphur water, 3500 feet; and Gulf Production Company's Hutchings 1, Ward Countyfi, hole full sulphur water, 4355 feet.

Transcontinental Test May Open New Fault Field

Mexia, Texas.—Considerable interest was aroused early this week in the wildcat test being drilled by the Transcontinental Oil Company on the T. D. Ross 24-acre tract, located about three miles west of the lower end of the Mexia fault, when a Woodbine sand core was taken at 2890-91 feet showing oil saturation.

This wildcat is testing a zone of faulting that parallels the Mexia fault, and all the key formations are running normal for a producing structure. The Transcontinental test logged the Austin chalk at 2115-2474 feet, with a surface elevation of 483 feet, and the horizon at which the oil saturated core was taken gives the Woodbine a minus depth of 2407 feet.

Geologists have pronounced the conditions favorable for a producing structure, with the oil saturated core well above the usual water horizon. Casing was set early this week and cemented, while no further work will be done for about ten days, owing to some work being necessary on a few leases.

Unusual secrecy is being adopted by the owners regarding formations and depths, and the numerous scouts assigned to report on the progress of the test are using every means possible to gather the information. Pure Oil Company and the Reiter-Foster Oil Corporation are among the largest lease owners, and each have contributed, or have agreed to pay when the test is completed, a cash sum to Transcontinental for the geological information and towards the testing of the block. Transcontinental holds leases on about 1500 acres, which were obtained last summer at prices ranging from $10 to $50, with an average price of $25 per acre. Pure is credited with having paid $15,000 for additional acreage after the core was taken from the test. The area holding the interest of East Central Texas operators centers around the Comanche Crossing on the Navasota River, Limestone County, and is on the lower end of the fault that cuts across the town of Tehuacana.

	April 14 1926
Grass Creek	2.15
Rock Creek	2.00
Lost Soldier	1.10
Lance Creek	2.15
Mule Creek	1.50
Notches	.65
Big Muddy	2.00
Osage	2.15
Hamilton Dome	1.80
Pilot Butte	1.75
Torchlight-Greybull	2.15
Lander	1.10
Salt Creek (Midwest Refining Company)	
29 to 29.9 gravity	1.48
30 to 30.9 gravity	1.56
31 to 31.9 gravity	1.64
32 to 32.9 gravity	1.72
33 to 33.9 gravity	1.80
34 to 34.9 gravity	1.88
35 to 35.9 gravity	1.96
36 to 36.9 gravity	2.04
37 to 37.9 gravity	2.12
Montana	
Sunburst	1.15
Cat Creek	2.15
NEW MEXICO	
Artesia	1.70
Hogback	1.95
CANADIAN CRUDE	
Oil Springs	2.70
Petrolia	2.63

*Bounty on Canadian crude is ¾ cent per gallon, or 26¼ cents per barrel.

	April 14 1926
LOUISIANA-ARKANSAS	
Caddo	
38 gravity and above	2.20
35 to 37.9 gravity	2.10
32 to 34.9 gravity	2.00
Below 32 gravity	1.85
Homer	
35 gravity and above	1.95
33 to 34.9 gravity	1.85
31 to 32.9 gravity	1.75
Below 31 gravity	1.60
Cotton Valley	
All grades	1.10
Haynesville	
33 gravity and above	1.85
Below 33 gravity	1.75
Bull Bayou	
38 gravity and above	2.00
35 to 37.9 gravity	1.85
32 to 34.9 gravity	1.70
De Soto crude	2.05
Crichton	1.85
Bellevue	1.50
Jennings	1.50
Vinton	1.50
Edgerly crude	1.50
Urania	1.30
Smackover (Standard, Gulf, Louisiana, Shreveport-El Dorado and Atlanta)	
27 and above	1.40
26 to 26.9 gravity	1.35
25 to 25.9 gravity	1.30
24 to 24.9 gravity	1.25
Below 24 gravity	1.00
The Texas Company	
27 and above	1.40
26 to 26.9 gravity	1.35
25 to 25.9 gravity	1.30
24 to 24.9 gravity	1.25
Below 24 gravity	1.00
El Dorado	
33 gravity and above	1.85
Below 33 gravity	1.75
East Field (Calion)	.95
Stephens District	
26 gravity and above	1.50
Below 26 gravity	1.30

COMPLETIONS FOR PAST WEEK IN U.S. FIELDS

Summarized Review of Field Results

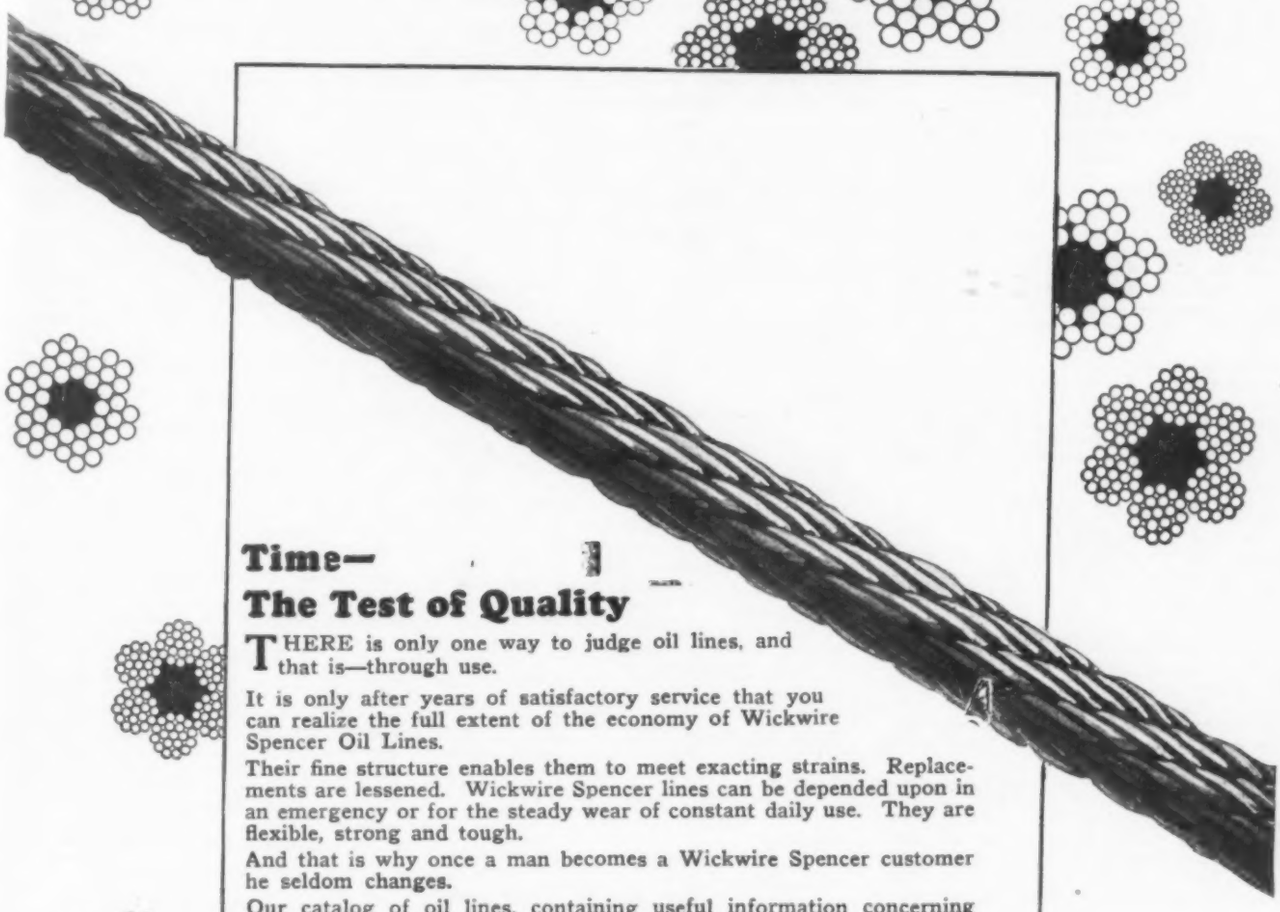
State—	Completions This Week	Completions Last Week	Producers This Week	Producers Last Week	Gas Wells This Week	Gas Wells Last Week	Failures This Week	Failures Last Week	Initial Production This Week	Initial Production Last Week
Arkansas	14	28	6	22	3	..	5	6	985	2,520
California	20	16	17	14	..	..	3	2	4,355	3,348
Colorado	1	2	..	..	..	..	1	2	....	.....
Indiana	2	1	2	1	..	..	..	..	45	3
Illinois	3	7	2	5	..	..	1	2	75	120
Kansas	20	31	12	19	1	..	7	12	3,200	4,080
Kentucky	22	22	15	16	1	..	6	6	82	298
Louisiana	26	17	22	14	2	..	2	3	1,805	1,560
Michigan	..	1	..	1	..	..	..	..	....	65
Mississippi	..	..	..	..	..	..	..	..	....	.....
Montana	6	1	2	..	1	..	3	1	205	.....
New York	6	..	6	..	..	..	..	..	28	.....
New Mexico	6	3	5	3	..	..	1	..	350	175
Ohio	25	40	21	22	1	13	3	5	224	270
Oklahoma	98	101	55	64	12	9	31	28	34,788	13,106
Pennsylvania	39	5	28	..	7	4	4	1	170	.....
Tennessee	..	..	..	..	..	..	..	..	....	.....
Texas	123	106	72	61	6	3	45	42	27,365	8,598
Utah	1	..	1	..	..	..	..	..	1,200	.....
West Virginia	32	44	12	9	12	26	8	9	197	141
Wyoming	8	2	6	..	..	1	2	..	400	35
Totals	452	427	284	252	46	56	122	119	75,474	34,319

NOTE—Following is the explanation of abbreviations, signs, etc., used in completion and wildcat reports: *—dry hole, abandoned well; ‡—salt water; †—junked and abandoned; ¶—million cubic feet of gas; abn—abandoned; bbls—barrels; b. s.—basic sediment; cas—casing; co—cleaning out; dk—derrick; dr—drilling; fsh—fishing; ft—feet; in—inches; lcn—location; m—milling N. S. E. W.—North, South, East, West; r—reaming; sd—shut down; sdtr—sidetracking; sp—spudding; sr—straight reaming; std—standardizing; sw—salt water; td—total depth; ur—under reaming; wo—workover; wosr—waiting on standard rig.

Texas

ARCHER COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
American Ref. Co. Portwood 8	5	1399
Barkley-Meadows et al L. F. Wilson 23	60	1532
Burns-Maxson et al A. P. Jackson 4	*	1605
Camp O. & G. Co. Bell 2	*	1150
N. B. Chenault et al Parrish 2	35	1586
Roy I. Carter et al Cowan 4	85	1061
J. S. Cosden-Consolidated Oil Co. Oldham 2-B	*	1385
Oldham 3-B	*	1383
Oldham 4-B	*	1382
Craig-Wilson et al Isham 1	*	1003
Creath-Medders et al Turbeville 1	*	1503
Decker et al Halley 1	*	1701
Fisher-Gilliland et al Rogers 9	100	1367
Golding-Cochran et al Conner 1	*	1617
Gulf Prod. Co. A. P. Nichols 27	65	1565
A. P. Nichols 31	40	1553
Power Banking Co. 4	*	1414
Power Banking Co. 5	50	1405
Humble O. & R. Co. D. L. Wolf 2	200	1357
Hamilton 7	75	1243
Ilseng Prod. Co. Prideaux 2, Lot 15	5	673
T. G. Lomax, Jr. et al's L. F. Wilson 1-J	*	1600
Magnolia Pet. Co. A. J. Lowe 21	10	1257
Cowden-Portwood 10	25	1405
McCarty Oil Co. L. F. Wilson 9-D	25	1600
Pandem Oil Corp. et al Fee 13	60	1448
Geo. L. Pace et al Wilson-McCrory 1-H	*	1550
Pioneer-Beasley et al Wolf 2	10	1384
Roxana Pet. Corp. Cockrell 2	*	1507
Cockrell 3	25	1449
C. A. Mangold 1	*	1838
Texhoma O. & R. Co. Hamilton 8	60	1807
S. E. Oldham 3-B	75	1361
The Texas Co. Beardon 8	125	1078
Tidal Oil Co. Griffin 1, dd	*	2005



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TEXAS PANHANDLE DISTRICT

Company, Well and Location	Initial Production Bbls.	Depth
Carson County—		
Marland Oil Co. Burnett 1-A (Sec. 116)	800	3135
Hutchinson County—		
Newby Oil Co. Cockrell 1	400	3031
Phillips Pet. Co. and Gibson Oil Corp. J. A. Whittenburg 2	240	2946
Skelly Oil Co. J. A. Whittington 1	200	2948
Sunny Jim Oil Co. J. A. Whittenburg 1	500	2996

BIG LAKE

Big Lake Oil Co. University 51	3470	2886

BROWN COUNTY

Barkley-Conway et al Dunn 3	80	1136
Dunn 5	500	1126
Gray et al Lewis 1	*	1773
Humble O. & R. Co., Dunn 5	240	1132
J. K. Hughes et al Arledge 3	200	1298
Hynes-Deininger et al Means 1	*	1340
Phillips Pet. Co. (was Landreth) Prather 1,	*	1335
McCarter et al Allen 2	†	820
McLester Oil Co. Wooldridge 3	75	1225
Cul Moorman et al Byrd 1	200	1322
States Oil Corp. Allen 3-A,	¶4-40	1118
The Texas Co. B. F. Dunn 4	300	1143
Western Oil Sales Corp. Smith 1	*	1607

COLEMAN COUNTY

Canyon O. & G. Co. Parsons 1	*	1950
Magnolia Pet. Co. J. P. Morris 1	*	3497
Mid-West Exploration Co. J. C. Dibrell 1-A	225	1942

EASTLAND COUNTY

Jim Amyx et al Connelle 1	¶4	2967
Hart et al Johnson 1	¶1	3230
Magnolia Pet. Co. W. E. Rice 2	10	1501
M. W. McMinn 8	10	1497
Root et al Luse 1	25	3655

SHACKELFORD COUNTY

Heck et al Reynolds 1	*	1390
Jackson et al Hadley 1	*	925
Milham Corp. Spell 1	*	980
Moutray Oil Co. Snyder 2	30	2215
Zeigler-Fentress et al McKeever 1	¶3	1953

STEPHENS COUNTY

Livingston et al Hodges 1	¶5	1982
Quakins Pet. Co. Harmon 12	15	2095

ELECTRA

Bridwell-Heydrick-Moore's Waggoner 2,	*	1570
Cochran-Myers et al Sheldon et al 1	*	2005
Culberson Oil Co. Waggoner Bros. 37	25	1515
E. A. Dale et al Burnett 10	20	1690
Humble O. & R. Co. Waggoner Bros. 2-D	30	588
Magnolia Pet. Co. H&TC Fee 71	120	1662
Staley-Wynne et al Hines 4	*	970
Texhoma O. & R. Co. Waggoner 17	*	601
Texhoma & Hammond's Waggoner 1	40	1507

K-M-A AND IOWA PARK

Maer-Staniforth et al Crudup 1	*	1860
E. J. Stump & Co. et al Dutton 2	*	1835
Chilson 1	*	1845

YOUNG COUNTY

Roy I. Carter et al Benson 6	50	933
M. J. Bashara et al Marshall 3	40	2846
Gulf Prod. Co. E. B. Hanna et al 1	*	1350
R. Campbell 6-A	100	913
Reed-Anderson et al Leberman 2	*	1012

CLAY COUNTY

Lowery Oil Corp. A. Culbertson 1	*	1900
L. W. Tarkenton et al Kafer 1	*	1900
Western Oil Corp. N. C. Camp 1	20	1754

MONTAGUE COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
E. L. Smith Oil Co. J. W. Maddox 1	¶5-100	910
Texhoma O. & R. Co. (was Humphreys Corp.) N. J. Howard 2	40	1360

SOUTH VERNON DISTRICT

Humble O. & R. Co. Waggoner 3-K	75	2340
Phillips Pet. Co. (was Landreth) Waggoner 5-CC	35	1905
Waggoner 1-SS	35	1890
Roxana Pet. Corp. Waggoner 6-A	75	1939
The Texas Co. Zipperle 1	*	2978

GULF COAST

Spindletop—		
Gulf Prod. Co.'s Gladys 222	75	825
Lillian Oil Co.'s Tyrrell 3	*	1000
Yount-Lee Oil Co.'s McFaddin 4	3000	3518
Goose Creek—		
Gulf Prod. Co.'s Beaumont Pet. Co. 21	250	3525
Wright 5	40	1875
Humble—		
Barkley & Meadows' Burt 7	150	2680
Sun Co.'s River 31	2300	3200
Hull—		
Gulf Prod. Co.'s Phoenix Dev. Co. 13	150	3075
Baldwin Fee 16	1150	3200
Thomas Fee	278	2960
Republic Prod. Co.'s Dolbear 51	*	3280
Dolbear 122	2300	2450
Yount-Lee Oil Co.'s Stengler 9	50	3120
Orange—		
Rycade Oil Corp.'s State B-6	600	4640
Texhoma Oil Co.'s Chesson 10	700	4760
High Island—		
Gulf Prod. Co.'s Smith 4	*	3375
Mackey, (Wharton County)—		
Gulf Prod. Co.'s Broden 1	*	4000
Boling—		
Atlantic Oil Prod. Co.'s Taylor 2	700	3080
Pierce Junction—		
Gulf Prod. Co.'s Taylor 9	1500	3775
Vinton—		
Atkins-Eilchelberger Synd. Hohnson 1	50	2075
Edgerly—		
Rex Oil Co.'s Hunter 1	40	3100
Evangeline—		
Jennings Pet. Co.'s S. F. S. 2	250	1800

EAST TEXAS

Waskom Gas Field—		
Industrial Gas Co. Abney 2, T. D. Wilson Headright survey, Harrison County	¶35	1942
Marion County, Western Extension Caddo Field—		
Atlantic Oil Prod. Co. Hinkel 1, C. Amis H/R survey	*	2656
Clark & Greer Lenoir 1	*	2728
J. K. Hughes et al Arledge 3	200	1298

EAST TEXAS

Marion County, Western Extension Caddo Field—		
Argo Oil Co. Waldon 1, T. E. Tucker H/R survey	5	2399
Atlantic Oil Prod. Co. Gammill 1, D. Hartzo H/R survey	2	2391
O'Dell & Lawton Harrell 3, G. Nall H/R survey	15	2380
Trimont Pet. Co. Mebane-Stiles 1, N. Gupton H/R survey	20	2570
Total, 4 wells	42	

SOUTHWEST TEXAS

Jim Hogg County—		
K. & S. Corp. No. 27 Holbein	3000	2139
No. 29 Holbein	¶45	2140
Medina County—		
Medina Oil Co. Taylor 2	12	315
Webb County—		
Crown Central-Keene No. 1	1000	1718

California

Company, Well and Location	Initial Production Bbls.	Depth
Long Beach—		
Breslin-Woodward-Sheedy Cerritos 2	125	4440
J. M. Cooper Los Cerritos 3	75	4450
A. J. Delaney Cerritos 24	100	4360
Cerritos 25	60	4425
Ibbetson Oil Co. Cerritos 6	195	4440
Julian Pet. Corp. Barns 1	100	4450
E. J. Miley Cerritos 3	125	4400
Reppetto Hills Oil Co. Cerritos 5	190	4455
Transport Oil Co. No. 1	100	4410
Athens-Rosecrans—		
Superior Oil Co.'s Weaver 1	*	4812
Union Oil Co. Gordon 1	*	6640
Dominguez—		
Union Oil Co. Callender 10	1150	4437
Torrance—		
Shell Company of California Redondo 11	100	3610
Elk Hills—		
Standard Oil Co. Tuppman 44	40	3400
Midway—		
King G. Gillette A-2	30	1190
Honolulu Consolidated Oil Co.'s 22	100	3600
No. 41	100	3600
Sunset—		
Lewis Pet. Co. Garner-Madison 13	75	857
Miocene Oil Co. No. 4	*	5250
Ventura Avenue—		
Associated Oil Co. No. 101	1690	5393

Arkansas

Irma Field, Nevada County—		
Humble O. & R. Co. Groves 3, 2-14-21	500	1154
Lisbon Field, Union County—		
Miles Trust Miller 1, 35-17-16	50	2940
Smackover Field, Union County—		
Custer et al's Primm 1, 1-16-16	*	2540
Humble O. & R. Co. Flenniken 9, 6-16-15	65	2595
E. M. Jones Murphy 9, 17-16-15	50	2680
Moco Oil Co. Flenniken 6, 5-16-15	140	2370
Natural Gas & Fuel Corp. Murphy A-5, 8-16-15	¶5	2770
Murphy C-3, 8-16-15	¶5	2650
Stewart et al Murphy 1, 9-16-15	¶10	2665
Sunny Jim Oil Co. Flenniken 7, 9-16-15	180	2590
Sun Co.'s McClanahan 2, 11-16-16	*	2590

Louisiana

Bellevue Field—		
Hanby Trust's Larkin 1, 14-19-11	10	386
Louisiana Oil Ref. Corp. Bodcau D-30, 15-19-11	250	383
Total, 2 wells	260	
Caddo Parish—		
Dixie Oil Co. Donovan 6, 21-22-15	8	1070
Robertshaw 73, 11-21-15	12	1701
Double I Oil Corp. **Watkins 5, 27-**21-15	30	1630
Lewis Oil Corp. Vespy 6, 16-21-15	5	1585
O'Dell & Lawton's Red Bayou 6, **15-21-15**	10	1564
Total, 5 wells	65	
Cotton Valley Field—		
Ohio Oil Co. Sidney 6, 16-21-10	50	2536
Monroe Gas Field—		
J. M. Huber, Inc., Fee 7, 30-19-5	¶2	2222
Pioneer Oil Co. Filhiol 1, 11-18-4e	¶2	2220
Total, 2 wells	¶4	
Urania Field—		
J. S. Abercrombie et al King 1, 25-**10-1e**	150	1505
B. & B. Drilling Co. Urania 1, 7-10-2e	300	1515
O. W. Clark Trust J. D. Russell 2, 26-10-1e	100	1562
Russell A-2, 26-10-1e	30	1560
Galloway et al's Pendarvis 3, 23-10-1e	25	1524
H. L. Hunt Tullos 5, 26-10-1e	70	1501

Company, Well and Location	Initial Production Bbls.	Depth
Huey P. Long et al Bass 1, 26-10-1e	40	1530
Louisiana Oil Ref. Corp. Tremont B-9, 25-10-1e	35	1567
Tremont B-29, 25-10-1e	40	1540
Ohio Oil Co.'s Urania 5, 18-10-2e.	100	1514
Roberts et al Russel 2, 25-10-1e.	150	1529
Rowe et al Urania 1, 5-10-2e	*	1726
Sherman et al Russell 1, 25-10-1e.	100.	1536
Total, 13 wells	1140	

Oklahoma

Carter County—

Magnolia Pet. Co. Newstadt 2, C NE NW SE 34-1s-3w	65	3180
C. D. Williams 3, NWc SW SE NE 23-2s-3w	135	2611
E. Lohman 9, C NW NE SE 23-2s-3w	¶8	2710
Carter Oil Co. Kimbrell 2, SWc 22-2s-3w	50	2279
Amerada Pet. Co. Fish 16, C SL NH NH SH 28-5s-1e	50	1220

Comanche County—

Cardinal Oil Co. Schultz 1, C NE NW SW 24-2n-10w	35	1649
Magnolia Pet. Co. Hardy 1, NEc SW 30-2n-9w	34	2192
J. T. Howard Blair 1, NWc SW NE 27-2n-10w, owd	*	2325

Creek County—

Magnolia Pet. Co. Scott 5, NE SE NW 18-18-7e, owd	50	2435
Tidal Oil Co. L. Fife 5, NWc NE NW 22-17-7e, owd	¶3½	2955
H. F. Wilcox Oil & Gas Co. Heneha 9, NWc SW NE, owd	120	3764
H. U. Bartlett Ricks 1, NWc SW NW 12-16-11e	10	1700
Gypsy Oil Co. Gray 17, NEc NW NW 6-18-12e	55	2070
Gray 18, C EL SW NW 6-18-12e.	1680	2155
Shaffer Oil & Gas Co. Wacoche 4, NWc NE NE 17-17-11e	145	2155
Riverside Oil Co. T. Hawkins 1, NWc SW NW 29-16-8e	*	3880
Eastern Oil Co. Roberts 5, SEc NE 17-15-8e	*	....
Pure Oil Co. Yarhola 15, NWc SE NW 17-15-8e	*	....
Roxana Pet. Co. Wilson 11, SWc NE NW 17-15-8e	*	....
C. G. Tibbens Loca Brown 1, SWc SE 1-14-8e	*	2450
Tidal Oil Co Dickson 4, SWc NE NW, 19-17-10e	*	2128
Chief Drilling Co. Stiel 1, SWc NW SE 7-16-11e	*	2986

Garfield County—

Roxana Pet. Co. Schroeder 6-L, NEc SW SW 18-22-3w	4780	3062
Sinclair Oil & Gas Co. Hartly 27, C NW NW NW 18-22-3w	25,687	4240

Grady County—

Magnolia Pet. Co. Farwell 2, NEc SE SE 23-5n-8w	2	2356
Cochran 1, SWc SE 27-3n-5w	25	1510
Noble & Westervelt Smith 2, SEc SW SW 24-5n-8w	¶3½	2330
Nichols Oil & Drilling Co. Reed 2-A, C SE SW SW 25-5n-8w	¶45	2434
Skelly Oil Co. Duke 2, C NL SW NW SW 35-5n-8w	¶3	2350
Prairie Oil & Gas Co. E. S. Pooler 3, C EH SE NE 22-5n-8w	¶40	2342

Hughes County—

Dixie Oil Co. Irvine 4, SWc NE SE 18-8n-10e	20	2823
J. W. McCullough Hill 1, C SW NE NE 27-9-9e	*	3553

Jefferson County—

Carter Oil Co. Jones 4, C SL NW NE 33-6s-5w	400	1398

Kay County—

Comar Oil Co. Day 1, NEc SE 20-29-1w	93	2380
Priboth 10, NWc SE NW 21-29-1w	56	2084
Polling & Denny Case 3, NEc SE SW 4-27-1w	¶30	2360

Lincoln County—

Magnolia Pet. Co. A. Sprolder 1, SWc NE 35-15-5e	45	3421
Martin 1, NEc NW SW 6-15-6e.	19	3492
Carter Oil Co. Earp 3, SWc SE SE 6-15-6e	48	4070
Skelly Oil Co. Hopkins 8, NWc SE NE 2-14-5e	120	3382
Amerada Pet. Corp. Belless 7, SWc NE SW 8-14-5e	25	3454
Carter Oil Co. Meeks 1, SWc 26-16-2e	*	....
Phillips Pet. Co. Sowards 1, SEc NE 35-15-5e	*	100
Wolfe Bros. Bloock 1, SEc 16-14-5e	*	....

McIntosh County—

G. F. Haun L. Greenwood 1, NEc 4-10-13e	*	3762

Muskogee County—

Bros. Oil Co. S. Thompson 2, NWc NE 33-15-15e	*	2204

Okfuskee County—

Champlin Oil & Ref. Co. Grayson 5, C NW SE NW 22-11-11e	300	2590
Phillips Pet. Co. Beardon 1, C SE NW SW 15-10-9e	*	3265
Prairie Oil & Gas Co. No. 8, NEc NW NE 24-11-11e	*	2812

Okmulgee County—

Okla. Nat. Gas Co. S. Tiger 5, SEc NW SE SE 24-16-12e	65	2222
Iron Mountain Oil Co. Rorschach 1, NWc NE NE 3-15-11e	50	2193
Morton & Co. Wilson 6, C N L SW NE 7-12-12e	300	2571
Jolly & Ogg S. Garnett 1, owd, SWc NE NE 21-15-14e	75	2271
Mechling V. Colbert 3, C WL NE NE 14-14-14e	7	1101
J. L. Selby A. Anderson 30, C NW NW 35-14-14e	15	1150
F. E. Cuseck W. Wiley 7, NEc SE NW 29-13-14e	35	1690
Nicholson Corp. Canard 2, SWc NW SE 13-11-13e	¶1	1354
Tidal Oil Co. M. Brown 4, SEc SW SW 28-15-13e, owd	*	2785
Hennessey et al J. Rowe 3, C SL NE SW 8-15-14e	*	....
Sinclair Oil & Gas Co. Jefferson 17, C NW NE 23-15-14e	*	1781
J. L. Selby S. Ragen 8, CL SW SE 24-14-13e	*	2568
Papoose Oil Co. C. Rentie 7, C EL SW SW 11-14-14e	*	1803
J. E. Wallace, C. Rentie 2, C WL SE SW 11-14-14e	*	1801

Osage County—

Keener Oil Co. No. 7, SEc NE NE 15-29-10e	15	1094
Owen Osage Oil Co. No. 361, C EH NW 21-28-10e	¶½	1886
The Texas Co., No. 6, SWc NE NW SE 29-25-8e	50	2492
Lewis Oil Co. No. 7, SWc NE NW 29-25-8e	110	2509
Peters Pet. Co. No. 8, NEc SW NE SE 12-23-8e	25	2156
Kewanee Oil & Gas Co., No. 1, NEc SW 4-22-11e	20	1664
Phillips Pet. Co., No. 6, SEc 10-21-9e	30	2269
Echo Oil Co. No. 1, NEc SE 29-20-10e	¶23	2160

Pawnee County—

Magnolia Pet. Co. Lesher 2, SEc NE NE 21-20-6e, owd	100	3124
Gypsy Oil Co. Milendore 9, SWc NE NW 1-20-7e, owd	10	2785
Mid-Continent Oil Co. School 16, NEc SW SW 16-20-7e	40	2637
School 17, SEc SW NW 16-20-7e	25	2634
Black et al, Cotton 1-A, NWc SW NE 6-20-8e	25	2548
Selby Oil & Gas Co. Eman 4, C EL NE SE 23-20-8e	70	2829
Sun-Ray Oil Co. Lee 1-A, NEc SE 5-20-8e	*	3040
McMamara & West Webb 1, SWc NE 21-20-8e	*	3321

Payne County—

Amerada Pet. Co. Haley 4, NWc SE SE 23-18-3e	235	3767
Blanner & Hartly, Lorett 1-A, NWc 2-18-6e	15	3348

Pontotoc County—

Boles & Smith Nelson 1, owd, NWc SE 34-5n-6e	20	1675
Texas Oil Co. Allenbaugh 1, SEc SW 3-11-6e	*	4750

Seminole County—

Superior Oil Co. L. Noble 1-A, NWc NE NW 15-9-6e	35	2628

Seminole County—

Magnolia Pet. Co. Norval 1, C SW SE SW 14-8-7e	290	3246
Gillstrap 1, C NW NE SE 6-7-8e	¶2	3135
Jarvis & Holmes, Madgett 1, C NW NW SW 4-10-6e	*	4337

Stephens County—

Magnolia Pet. Co. Russell 5, C S L SE SE 25-1s-9w	10	1980
Muse et al, Lester 1-A, NEc SE 4-2e-8w	*	2416
Gibbons, Johnson & Carter, Florence 1, C SW SE SW 2-3s-6w	*	2005

Tulsa County—

Pet. Co. Buck 1, owd, SWc NE 4-16-13e	2	2021
Sand Springs Home, C. Page 3, SWc SE NE NW 3-19-11e, owd	*	2441
Pennock Oil Co., Grayson 7, owd, C S L NE SW 17-19-11e	*	2073
Thomas 10, C E L NW NW 20-19-11e	*	2382

Wagoner County—

Mays Bros. Lewis 1-A, SWc NW 15-19-15e	20	1400
R. W. Talbot, T. Kelly 1, NWc NE SW 10-18-6e	¶5	1096
D. T. Marr, Hawkins 1, SWc NE 29-18-16e	5	800
C. L. McMahon, Atkins 5, NWc SE NE 14-17-16e	¶1¼	1410

Kansas

Butler County—

Amerada Pet. Corp. Kruse 2, SWc NW 27-27-7e	15	3762
Phillips Pet. Corp. Kruse 4, SWc NE NW 27-27-7e	250	2757
Truesdale 5, NWc SW SW 27-27-7e	400	2752
Lewis Oil Co. Laughlin 1, NEc NW NE 33-27-7e	40	2738
Atlantic Oil Co., Elder 1, SWc SE 15-28-7e	190	3090
Sanford et al Salathiel 1, NEc NW 12-26-6e	*	2789
Mason & Ralston Schoenrock 2, NEc SE SW 32-26-6e	*	....
Hoyt et al Huntly 1, SWc NW 32-26-7e	*	3156
Mathews et al Valkman 1, 32-27-6e	*	....

Elk County—

Empire Oil & Gas Co., Wilber 1, C NW NW 22-31-9e	¶¼	1493

Greenwood County—

Day et al, Fuller 1, SEc SW 1-22-10e	950	2036
Davis & Hazlett, DeMalorie 13, SEc SW NE 12-22-10e	1000	2127
Empire Gas & Fuel Co. Fromme 9, SEc NW NE 14-22-11e	125	1916
Theta Oil Co. Souder 12, C W L SW 3-23-13e	30	1810
Mid-Continent Pet. Corp. Shambaugh 12, C N L NW 22-23-13e	75	1625
Mid-Kansas Oil Co. Ladd 7, NWc SW NW 20-25-9e	125	2391
Connell et al Huntsinger 1, SWc SE 1-22-10e	*	2162
Transcontinental Oil Co. Pixlee 1, NWc SW NE 3-22-10e	*	2275
Pryor & Lockhart, Derbyshire 6, NEc SE 13-22-10e	*	2150

Eastern States

PENNSYLVANIA

Bradford Field—

South Penn Oil Co. Rounds & Lawrence 51	35	....
Bingham 554 tract 47	10	....
Bingham 494 tract 47	8	....
Enterprise 1	3	....
Hodge 5	3	....
Hazlewood Oil Co. Bingham 40.	5	....
L. G. Dana L. G. Dana 1	5	....
Gridiron Oil Co. Duke 8	4	....
Denwood Oil Co. Garlock 6	3	....
J. L. Yerdon Bingham 4	4	....

Company, Well and Location	Initial Production Bbls.	Depth
W. S. Jones & Son Bingham 1	3	....
S. J. Sprague Sprague 1	*	....
Hannon & Stover Hannon & Co. 7	4	....
Barry Bros. Bingham 1	3	....
Linwood Oil Co. Gerner 1	3	....
Venango County—		
Dempseytown Gas Co. Nuhfer 1	¶1¼	....
McDowell & Co. Donaldson 3	3	....
B. A. Porter Porter 20	2	....
L. J. Kirkwood & Co. Murphy 20.	3	....
Exchange Bank of Franklin Graham 35	2	....
W. W. Splane Splane 31	2	....
Butler County—		
Montag & Co. Montag 1	25	....
Wick & McBride McBride 2	10	....
Lava Crucible Co. Fee 1	*	....
Saxonburg Light & Heat Co. Logan 1	*	....
H. L. Swartzlauder Swartzlauder 1.	7	....
Burns, Sherwin & Co. McGarvey 2	¶1½	....
Center-Middle Field—		
L. Epstein & Co. Lot 436 tract 41	7	....
Reinbold & Co. Osgood 11	3	....
T. Bean Harman 1	2	....
J. C. Cochran Lot 7 tract 50	4	....
D. Wade Irvine 1	2	....
Greene County—		
R. C. Clovis & Co. H. S. Roberts 1	¶2	....
Hawkins Oil & Gas Co. Hawkins heirs 1	¶3	....
J. I. Eddy & Co. Charles Roberts 1	¶1½	....
Philadelphia Oil Co. Wm. Finch 2	¶½	....
Clarion County—		
H. & D. O'Neill O'Neill Bros. 6	5	....
A. E. Kaber Powers 1	¶1½	....
William Lander & Co. Lander 1	*	....

NEW YORK

Allegany County—		
McDermott & Giligan McDermott 1	7	....
C. H. Lavans & Co. Lavans 1	7	....
Citizens National Bank Co. Reid 46	5	....
Howard & Phillips Howard 1	5	....
M. J. Crowley & Co. Coast 17	2	....
C. D. Henline & Co. C. D. Henline 2	2	....

WEST VIRGINIA

Ritchie County—		
Auburn Oil Co. Lawson Hall 1	20	....
T. J. Davis Goff heirs 1	¶1	....
Hope Nat. Gas Co. W. H. Martin 1	¶1	....
L. M. Ehret 1	¶1	....
South Penn Oil Co. Barbara James 2	3	....
S. O. Young & Co. E. E. Britton 1	10	....
Rhinehart & Co. Mitchell 1	50	....
Putnam County—		
Scott Oil Co. Fannie J. Simms 2	15	....
Kirtley & Kirtley Fannie J. Simms 1	30	....
Dillon & Franklin J. S. Frazier 1	5	....
Charleston Natural Gas Co. W. E. Wall 1	¶¼	....
Doddridge County—		
Manufacturers Light & Heat Co. L. L. Shinn 1	*	....
Trainer & Travis Thomas Pearcy Heirs 4	8	....
Philadelphia Oil Co. W. A. Douglass 9	25	....
Hope Natural Gas Co. H. L. Heff-lin 2	¶1	....
Gilmer County—		
Pittsburgh & West Va. Gas Co. A. M. Springton 1	*	....
Philadelphia Oil Co. Stalnaker 2	20	....
Hope Natural Gas Co. W. H. Otto 1	¶2	....
South Penn Oil Co. Craddock-Hard-man 1	*	....
Marion County—		
Carnegie Natural Gas Co. M. J. Richardson 2	¶3	....
Funk & Co. W. O. Mayne 1	¶2¼	....
Hope Natural Gas Co. Ella Kind-say 1	*	....
Tyler County—		
Wiser Oil Co. John Mason 1	3	....
Hill & Gordon Nancy Hays 9	*	....
Calhoun County—		
L. B. Carroll Martha A. Silsott 1	¶2	....
Hope Construction & Refg. Co. C. M. Offutt 1	¶1½	....
Wetzel County—		
Manufacturers Light & Heat Co. Ingram White 1	*	....
Patrick Clark 3	*	....
Jackson County—		
Ohio Fuel Oil Co. C. C. Waters 1	8	....
Lincoln County—		
Columbia Gas & Electric Co. A. McCallister 3	¶1¼	....
Clay County—		
South Penn Oil Co. O. D. Stockley 16	¶2	....
Logan County—		
Hope Natural Gas Co. Cole-Crain 3	*	....

KENTUCKY

Cumberland-Monroe Counties—		
Kanawha Oil Co. J. E. Rush 1	15	382
McClintock, Heckathorn & Co. J. M. Hughes 3	*	1071
A. S. McClintock & Co. Bedford Coffee 1	*	1051
Barren County—		
Hiland Oil & Gas Co. Casady 14	8	....
J. W. Porter Chamberlain 1	*	....
Wood Oil Co. Keaton 1	*	....
Johnson-Magoffin Counties—		
R. G. Gillespie F. M. Hale 1	3	....
Hudson & Collins Oscar Wheeler 7	2	....
Clyde Oil Co. William Powers 2	*	....
Warren County—		
New Domain Oil & Gas Co. Besse Snell Clark 4	2	....
T. A. Sheridan C. G. Davenport No. 1, tract 4	2	1336
Henderson & Brand J. M. Morgan 5	2	1320
Owensboro District—		
Pennsylvania-Indiana Oil Synd. John N. Swope 12	25	....
Petroleum Extraction Co. Jirk-Woodward 1	*	....
Lawrence-Johnson Counties—		
Swiss Oil Corp. Caney Sparks 9	2	....
P. P. Holbrook 36	10	....
Morgan County—		
Conley Bros. Willie Blanton 1	3	....
Willson Oil Co. Kelley Owens 2	5	....
Estill County—		
Chiles & Miller A. G. Wagers 6	1	....
A. G. Wagers 7	1	....
Allen County—		
White Plains Oil & Gas Co. W. B. Tabor 21	1	515
Floyd County—		
Eastern Carbon Black Co. Manda Conley 3	¶2½	....

SOUTHEASTERN OHIO

Morgan County—		
W. L. Little & Co. Bart Kasler 1	3	....
Riley Morris 1	2	....
Noble County—		
Clyde Hutchinson A. & E. Wagner 1	2	....
Washington County—		
Harris & Co. William Yost 4	*	....

CENTRAL OHIO

Licking County—		
Harry Farmer & Co. O. R. Hound 1	25	....
Ohio Fuel Supply Co. Frank Dush 1	*	....
Knox County—		
Ohio Fuel Supply Co. Robert Neid-erhouse 1	5	....
East Ohio Gas & Ref. Co. George A. Rickert 4	3	....
Athens County—		
Ohio Oil & Gas Co. W. N. Alder-man 3	10	....
Hocking County—		
Schneider Oil & Gas Co. Jacob Schneider 1	5	....
Meigs County—		
P. L. Clifton & Co. Ernest McBride 2	4	....
Perry County—		
Rush Creek Oil & Gas Co. William Love 1	*	....

NORTHWESTERN OHIO

Shelby County—		
Wittmer Property Trustee Joseph Siegel 4	15	1362
Frank Earnst 1	2	1323
Lee A. Watson Feliz Grillioux 4	5	....
Hardin County—		
Boston-Southwestern Oil & Gas Co. Mary C. Irwin 4	35	1487
G. W. Strawn 2	32	1487
Wood County—		
Hulse & Kundtz E. A. Judson 1	5	1592
Ohio Oil Co. F. Bealer 29	24	1368
Sandusky County—		
Charles F. Zeizing & Co. Harmon Linke 2	10	1270
Ohio Oil Co. Henry Kinker 5	9	1368
Hancock County—		
Ohio Oil Co. J. E. Moorehead 11	11	1363
Baseline Oil Co. E. Crow 1	5	1350
Allen County—		
Gwinn Oil & Gas Co. J. A. Bier-man 5	12	1242
Mercer County—		
Recovery Oil & Gas Co. J. N. Lasha 1	¶¼	1190

INDIANA

Daviess County—		
Maple Oil Co. J. J. Peek 3	25	990
Pike County—		
Gem Oil Corp. George W. Taylor 2	20	1306

ILLINOIS

Wabash County—		
Mahutska Oil Co. Mack Madden 3	65	1510
W. C. McBride Inc. J. H. Cisil 4	10	1470
R. Dunathan & Co. H. S. Schaffer 1	*	1586

Mountain States

WYOMING

Salt Creek—		
Continental Oil Co. No. 4LS, SW¼ 2-39-79	35	1732
Wyoming Associated Oil Co. 21L, SE¼ 35-40-79	100	2623
No. 21A, SE¼ 14-40-79	60	1710
No. 36, SW¼ 26-40-79	80	2293
Wyoming Oil Fields Co. No. 36A, SE¼ 23-40-79	75	1434
No. 22A, NE¼ 26-40-79	50	1470
La Barge—		
Transcontinental Oil Co. No. 1, 9-26-113	*	2501
Gebo—		
Mountain State Pet. Co. No. 1, SW¼ 23-44-95	*	2900

MONTANA

Kevin-Sunburst—		
Sunburst Oil & Gas Co. No. 10, 31-34-2	*	1576
Adams Oil Co. No. 1F, 1-34-2	¶	1180
Ohio Oil Co. No. 1, 12-33-3	*	1698
Dupont Oil Co. No. 1L, 31-35-3	150	1759
California Syndicate No. 2M, 3-24-2	*	1530
Dakota Montana Oil Co. No. 7, 30-35-1	55	1525

NEW MEXICO

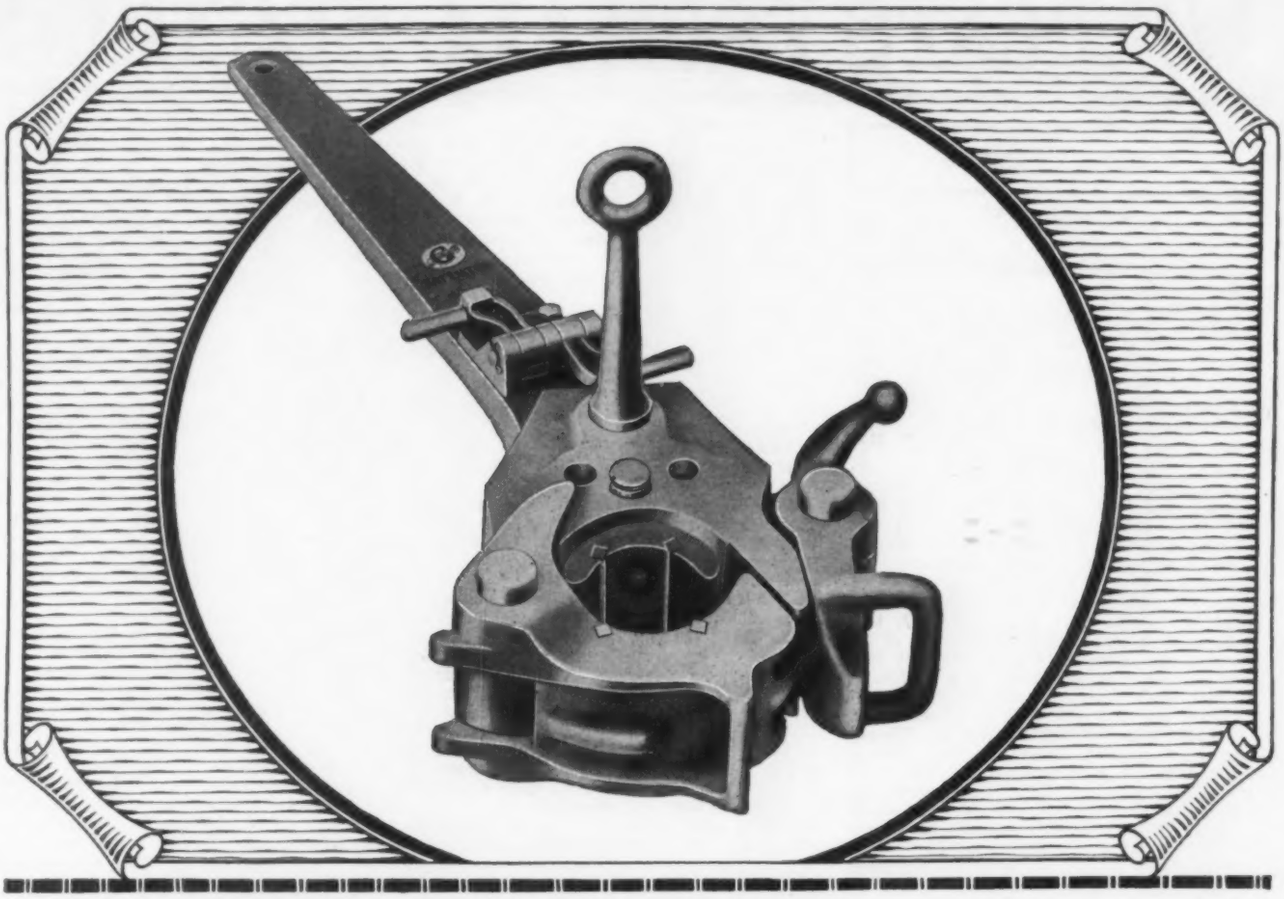
Eddy County—		
Flynn, Welch & Yates No. 30, SE¼ 21-18-28	75	2190
No. 40, SE¼ 29-18-28	50	2050
Frontier Pet. Co. No. 2M, 4-18-28	50	2200
Levers-Carper Co. No. 2, 3-18-28	150	2448
Snowden & McSweeney No. 1M, 4-21-30	*	4401
No. 4, 33-18-28	25	2850

COLORADO

Mesa County—		
Gypsy Oil Co. No. 1M, 9-9-101	*	3785

UTAH

San Juan County—		
Midwest Refining Co.	1200	2056



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506 Trust Bldg., NEWARK, O.

GUIBERSON

BETTER BE SAFE THAN SORRY

Say you saw it in The OIL WEEKLY

WILDCATS FROM ALL SECTIONS

Coastal Wildcats

COMPLETIONS

Company, Well and Location		Initial Production Bbls.	Depth
Chambers County—			
W. C. Moore's Drought 1	*		1195
Jefferson County—			
Houston Oil Co.'s Sun Dyson 1	*		3104
Yount-Lee Oil Co.'s McFaddin 4		3000	3518
Yount-Lee Oil Co.'s Gladys City 3, 675			3015
Victoria County—			
Houston Oil Co.'s Mrs. M. V. O'Connor 1,	*		3128

DRILLING REPORT

BRAZORIA COUNTY—Roxana Pet. Corp.'s Clemens 1, S 78 degrees E and 12,903 ft from NW corner John McNeel League, fsh at 4518 ft; Allen 2, 1741 ft E of No. 1, Sterling-McNeel tract, dr at 3467 ft in sand, shale and lime. Rycade Oil Corp.'s Nash 6, 500 ft and 45 degrees SW No. 5, Lot 2 of W. R. Nash 200 acres, dr at 3081 ft in gumbo; Nash 7, 1600 ft E of W line and 200 ft S of N line of W. R. Nash 200 acres, dr 3433 ft in shale; Wisdom 4, 400 ft E and 2,000 ft S of No. 1, dr 3669 ft in sand and lime; Wisdom 6, 600 ft NE of No. 4, dr 1357 ft in hard lime.

CHAMBERS COUNTY—W. C. Moore's Drought 1, Sec. 28, T&NO sur, abn 1195 ft.

COLORADO COUNTY—R. C. Timms et al's Drumgould 1, on H. A. Cutler lease, sec. 11, near Eagle Lake, dr at 2260 ft in gumbo.

FORT BEND COUNTY—Rycade Oil Corp.'s Flessner 2, 325 ft N Nash 5 on D. Flessner 200 acres, dr at 3832 ft in gumbo; Flessner 3, 300 ft E of Flessner 2, dr 66 ft. Gulf Prod. Co.'s Moore 6, 84 vrs to S and 2598 vrs to E line, German Emig. No. 80, dr 2660 ft in hard sand. Davis 8, 100 ft to N and W lines on G. Watson tract, dr at 3552 ft in shale; Davis 10, 200 ft N No. 9, dr at 670 ft in gyp.

GALVESTON COUNTY—Gulf Prod. Co.'s Smith 5, 300 ft S No. 2 at High Island, dr at 2800 ft in sand and boulders.

GOLIAD COUNTY—Houston Oil Co.'s Pettus 1, 10 miles W of Goliad, dr at 3418 ft in hard sand and lime; Parks 1, 8 miles E of Goliad, dr at 2902 ft in hard shale.

GRIMES COUNTY—E. G. Johnson et al's Cuthrell 1, NW side of J. E. Cuthrell 110-acre tract near Singleton, dk.

HARDIN COUNTY—Vacuum Oil Co.'s Teel 3, off Saratoga dome on R. Teel tract, dr at 3070 ft in sand. Rio Bravo Oil Co.'s Fountain 5, 850 ft N and 900 ft E of SW corner of J. O. Fountain 100 acres off Saratoga dome, fsh at 3820 ft. Sun Co.'s Carpenter 1, 2000 ft W of production at Sour Lake, dk. Humphrey Oil Corp.'s Jackson 1, 25 ft N and 35 ft W of SE cor strip 28 Stephen Jackson League, near Sour Lake, dr at 1625 ft in gumbo. Texas Little Farms Co.'s Hawley 1, Joel E. Hawley League, 5 miles S of Saratoga, sd at 2951 ft in gumbo. Humble O. & R. Co.'s Weise 2-A, 2 miles N of Strain, dr at 211 ft in clay.

HARRIS COUNTY—The Texas Co.'s Warren 6, E. Ehrenberg sur, near Hockley, dr at 3451 ft in sand, shale and lime; No. 7, 700 ft NW No. 3, dr at 1602 ft in hard gray sand. Rio Bravo Oil Co.'s Pierce Fee 2, 300 ft N and 75 ft E of No. 1 at Pierce Junction.

LIBERTY COUNTY—Humble O. & R. Co.'s Welder 2, South Dayton offset to Welder 1, 12,000 ft W of South Liberty production, dk.

JEFFERSON COUNTY—Houston Oil Co.'s Sun Dyson 1, near Big Hill, abn at 3104 ft. Yount-Lee Oil Co.'s McFaddin 4, 300 ft S No. 3, completed for 3000 bbls of 28 gravity at 3518 ft. Gladys City 2, off NE edge Spindletop dome, completed for 675 bbls oil and 3800 bbls water at 3015 ft; 15.75 gravity. Gulf Prod. Co.'s Burrell 1, 1000 ft E Thomas 5, near Fannette, dr at 4100 ft in sandy shale; Bordages 2, Fannette, dr at 2310 ft in gumbo. Houston Oil Co.'s Pippin Davis 1, resumed dr 2157 ft.

MATAGORDA COUNTY—Rycade Oil Corp.'s Kountz 1, 1000 ft W and 800 ft N of SE cor blk. 23, Henry Parker League, dr at 3042 ft in gumbo and shale. Gulf Prod. Co.'s Craig 4, NE cor T. Williams sur on J. H. Craig 840 acres, dr at 1700 ft in gumbo; Sanborn 1, NE cor T. Williams sur, rigging up. Sheppard Mound Oil Co.'s Hawkins 2, on Hawkins ranch, Sheppard Mound, standing at 2980 ft.

REFUGIO COUNTY—Houston Oil Co.'s O'Connor 1, Tom O'Connor ranch, Hearn sur near Mission Bay, standing gas sand at 3490 ft.

VICTORIA COUNTY—Houston Oil Co.'s O'Connor 1, Mrs. M. V. O'Connor ranch, near Mariana, abn at 3128 ft.

WASHINGTON COUNTY—S. H. Spangler et al's Regeine 1, 6 miles NW of Burton on Regeine farm, Sandtown district, sd at 1200 ft.

WHARTON COUNTY—The Texas Co.'s Taylor 5, Boling, 200 ft SW No. 4, dr at 2663 ft in sand; Taylor 7, 200 ft SW No. 5, dr in oil sand at 3854 ft; Floyd 1, M. S. Floyd 56-acre tract, sdtr at 1465 ft. Humble O. & R. Co.'s Hawes 6, offset to Vacuum's Hooper 2, dr at 3265 ft in gumbo. The Texas Co.'s Taylor 8, 200 ft SW No. 7, sd at 2400 ft. Vacuum Oil Co.'s Hooper 1, 50 ft from each line of NE corner of L. M. Hooper 100-acre tract, dr at 4186 ft in gumbo; Hooper 2, offset to Humble's Hawes 6, dr at 2476 ft in gumbo. Oxford Oil Co.'s Floyd 3, 230 ft S No. 2, dr at 3204 ft in lime. J. K. Hughes Dev. Co.'s Mullins 1, 350 ft to W line of Mullins 60-acre tract, dr at 2410 ft in shale. Houston Gulf Gas Co.'s Woodfin 1, 5400 vrs along NE line and 500 vrs S at right angles with line in John Huff sur, dr at 699 ft in shale; Gulf Prod. Co.'s Mick 1, 100 ft each way out of NW cor G. C. Mick N. 100-acres in Lovelock subdivision, Jas. Rich's Dennis 2, 30 ft from No. 1 and 5 miles W of Wharton, dr at 729 ft in lime; Sorrel 1, on Sorrel 657 acres, Glen Flora road, dr 571 ft in lime rock.

ST. MARTIN'S PARISH—Rycade Oil Corp.'s Atchafalaya 1, sec. 18-9s-9e and 600 ft E of Gulf's No. 3, no report.

ST. MARY'S PARISH—Rio Bravo Oil Co.'s Glenwild 1, on Glenwild 4500 acre plantation, sdtr at 3025 ft.

Central West Texas Wildcats

COMPLETIONS

Company, Well and Location		Initial Production Bbls.	Depth
Crane County—			
Gilliam-Conner et al W. H. Penix 1	†		449
Tom Green County—			
S. R. Penn et al Harley Turner 1	*		3401
Upton County—			
F. P. Zoch & Marland Oil Co. Ruhman 1, (Sec. 100)	*		3500
Independent O. & G. Co. Burleson 1	10		2231

DRILLING REPORT

BREWSTER COUNTY—Green Valley Oil Co.'s J. P. Wilson 4, spd.

COKE COUNTY—Lipan Oil Co.'s E. C. Rawlings 1, dr 1115 ft.

CONCHO COUNTY—R. C. Dutton et al's W. O. Schultz 1, set 6⅝-inch cas 1355 ft. K. Kemberlin et al's Schultz 1, dr 720 ft.

CRANE COUNTY—Cordona Oil & Potash Co.'s Cowden 1, sd 3571 ft. J. S. Cosden et al's Connell 1, dr 620 ft. Cranfill Bros. Oil Co.'s P. J. Lea 1, lcn. Davis-Hoffman et al's University 1, lcn. Gilliam-Conner et al's W. H. Penix 1, elevation 2820 ft, skidded rig, td 449 ft. Gulf Prod. Co.'s J. T. McIlroy 1, lcn. Independent O. & G. Co et al's Len Taylor 1, Sapp survey, flowing 110 barrels daily by heads, sd for tubing, td 2045 ft. Magnolia Pet. Co. et al's University 1, elevation 2601 ft, top salt 1145 ft, top lime 2925 ft, co junk and cavings with hfw 3030 ft. Marland Oil Co.'s Cowden 1, Sec. 34, elevation 2490 ft, top salt 800 ft, dr with hfw 3483 ft; E. S. Hughes 1-A, section 2, top salt 475 ft, dr 480 ft. Texas Dev. Co.'s Cowden 1, dk burned, td 3820 ft. Penn-Texas Dev. Co.'s Cowden 1, fsh with hfw 3352 ft. The Texas Co.'s Sanger 1, lcn. F. P. Zoch and Marland Oil Co.'s Keith-Hughes 1, section 92, elevation 2594 ft, top salt 728 ft, top lime 2290 ft, setting 8¼-inch cas 800 ft oih 2549-50 ft.

CROCKETT COUNTY — California Co.'s University 1, lcn section 34, blk. 7. J. S. Cosden et al's Noelke 1, dr 2100 ft. Carl Cromwell et al's Powell 2, top salt 1161 ft, dr 2290 ft; Powell 3, dr 810 ft; Powell 4, rig. Crockett Drilling Synd.'s Shannon 2, dr 2320 ft; Shannon 3, lcn. Cumberland O. & G. Co. et al's Couch 1, spd and sd. Gulf Prod. Co.'s Powell 1-A, fsh 1865 ft; Powell 2-A, fsh piece bit 1105 ft; Powell 3-A, fsh bit 95 ft; G. L. Thompson 1, rig. Humble O. & R. Co.'s J. P. Sorg 1, sd making oil and water, td 2680 ft. Humble & Marland Oil Co.'s Powell 4, top salt 1128 ft, dr 1245 ft; Powell 5, rig; Powell 6, dr 640 ft; Powell 7, rig; Powell 8, dk. J. K. Hughes et al's Powell 1, dr 860 ft; Powell 2, lcn; Powell 1-A, dr 160 ft. Humphreys Corp.'s University 1, dr 4165 ft. Magnolia Pet. Co.'s J. M. Shannon 1, dr lime 2505 ft. Marland Oil Co.'s Todd 1, ur 15½-inch cas 505 ft. Roxana Pet. Corp.'s Powell 1, dr up junk 710 ft. Wm. Shaffer et al's University 1, sd 1365 ft. Ben Simon et al's Shannon 1, lcn. The Texas Co.'s J. S. Todd 1, dr 1820 ft. H. F. Wilcox et al's University 1, dk. F. P. Zoch-Marland Oil Co et al's University 1, lcn.

CULBERSON COUNTY — Deep Rock Oil Co.'s TP Fee 1, rig. Pure Oil Co.'s Mrs. G. H. Quaid 1, ur 1900 ft.

JEFF DAVIS COUNTY—Herbert Oil Co.'s T. M. Wingo 1, set cas to test show oil 2465 ft. Humble O. & R. Co.'s W. W. McCutcheon 1, fsh tools 660 ft.

ECTOR COUNTY—J C. Cooke et al's Henderson 1, lcn; J. S. Cosden et al's J. L. Johnson 1, lcn; W. E. Connell 1-A, lcn; W. E. Connell 1-B, lcn. Broderick-Calvert et al's W. F. Cowden 1, lcn at C section 12, Public School Lands, Blk. "A". The Exploration Co.'s Kloh et al 1, lcn.

GARZA COUNTY—Deep Rock Oil Co.'s S. M. Swenson 1, sd 1620 ft. Emerald Oil Co.'s Connell 1, sd 3200 ft; Boren 1, dr by tools 2475 ft. Mid-West Exploration Co.'s N. N. Rogers 1, top salt 535 ft, dr 1545 ft.

GLASSCOCK COUNTY — Case-Hoover et al's W. H. Sparkman 1, sd 2815 ft. Mascho & Marland Oil Co.'s Nellie Calder 1, fsh cas 1680 ft. Choate-Henshaw & Marland's Neal 1, dr 3230 ft.

TOM GREEN COUNTY—M. B. Bryant et al's Llano Fee 1, dr 885 ft. Roxana Pet. Corp.'s L. T. Clark 1, set 8¼-inch cas 2500 ft. World Oil Co.'s Pulliam 1, material.

HOWARD COUNTY — Owen-Sloan Oil Corp.'s Otis Chalk 1, section 113, blk. 29, W. & N. W. survey, elevation 2430 ft, flowing 200 barrels 33 gravity oil at 1577-84 ft. Choate-Henshaw & Marland Oil Co.'s O'Daniel 1, sd 3103 ft. Transcontinental Oil Co.'s Ora Roberts 1, dr 1395 ft.

IRION COUNTY — Oklavania Oil Co.'s Sawyer 1, ur 8¼-inch cas 2268 ft. P. H. Williams et al's Ashe Bros. 1, dr 710 ft.

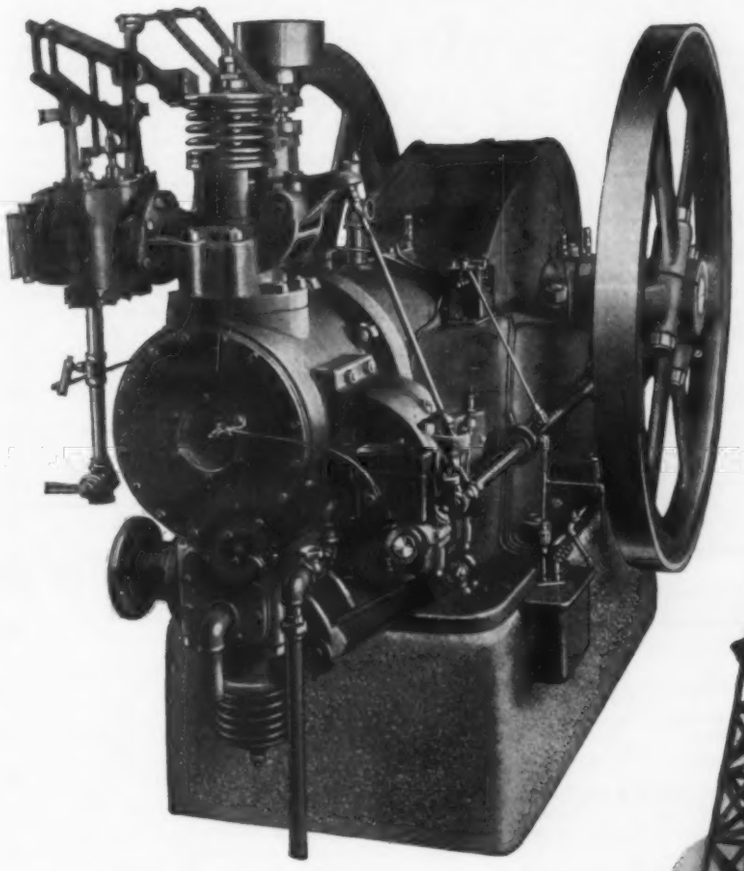
JONES COUNTY — Shaw-Rathke et al's Wm. Bristow 1, dr 465 ft.

KENT COUNTY—The Texas Co.'s Brown 1, dr 2840 ft.

LYNN COUNTY—Hart Oil Corp.'s C. O. Edwards 1, ur 300 ft.

MITCHELL COUNTY—Atlantic Oil Prod. Co.'s Adams 5, rig. California Co.'s C. M. Adams 3-A, rig; Adams 2-B, set cas 2760 ft; Adams 1-C, rig; W. L. Foster 1, dk; Petitfils 1-A, rig; Womack 4, dr 2875 ft; Womack 5, dr 1300 ft. B. H. Cogdell et al's McKenzie 1, spd and sd. Eastland Oil Co. et al's J. J. Handley 1, dr 2800 ft. Mid-Kansas O. & G. Co.'s Ellwood 1, dr 2765 ft. Magnolia Pet.

A New Reid Gas Engine



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West of the Mississippi—Stores Everywhere
East of the Mississippi—The Frick & Lindsay Co.

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Co.'s Mary Foster 2, dk; A. P. Watson 1, top lime 1750 ft, dr 1895 ft; L. Coleman 1, sr 3220 ft; C. M. Adams 3, co with 1500 ft oih 3026 ft; Adams 4, rig; Adams 5, lcn; Abrams 1, dr 2270 ft. Owen-Sloan Oil Corp.'s C. P. Conway 1, lcn. Waterbury et al's Ellwood 1, lcn.

PECOS COUNTY—Dixie Oil Co.'s Hersheusen 1, dr 4035 ft. Lloyd-Miller et al's Bonebrake 1, lcn. Levi Smith et al's Devlin 1, sd 775 ft. Transcontinental Oil Co.'s Perry 1, sd 2850 ft. Trans-Pecos Oil Co.'s Bennett 2, fsh 1045 ft.

PRESIDIO COUNTY — Hadlock-Miller et al's Tootle 1, fsh parted casing 2204 ft.

REAGAN COUNTY—H. D. Camp et al's University 1, sd 1050 ft. Marland Oil Co.'s J. T. Cole 1, top salt 1218 ft, sd 1786 ft. Marland & Mascho's Sawyer 1, sd 480 ft. Marland & F. P. Zoch's J. A. Talley 1, top salt 1060 ft, fsh bailer 2285 ft. Ben Simon et al's R. A. Walters 1, sd 325 ft. L. V. Tannehill et al's University 1, ur 5-3/16-inch cas 3090 ft. The Texas Co.'s J. D. Sugg 1, top salt 868 ft, dr 2220 ft.

REEVES COUNTY—Humble O. & R. Co.'s T. P. Fee 1, dr 840 ft. Grisham-Hunter Corp.'s State Fee 1, lcn. World Oil Co.'s T. P. Fee 1, set 6⅝-inch cas 3280 ft. Schooler-Slack et al's T. P. Fee 1, sd 540 ft.

SCHLEICHER COUNTY—Beavers-Leath et al's Whitten 1, lcn.

SCURRY COUNTY—E. E. Fogelson et al's Bryce 1, sd 1905 ft. Northwest Co.'s H. P. Welborn 1-A, dr 1260 ft.

STONEWALL COUNTY — Arkansas Fuel Oil Co.'s Craft 1, dr 3465 ft. Swenson Oil Corp.'s Ward 1, sd 3605 ft.

STERLING COUNTY—The California Co.'s J. T. Davis 1, rig. Co-Operative Dev. Co.'s E. W. Douthitt 1-A, sd 2675 ft. Chicago-Texas O. & G. Co.'s Durham 1, dr 3465 ft. Deep Rock Oil Co.'s L. T. Clark 1, sd 1850 ft. The Exploration Co.'s C. A. Broome 1, lcn. G. M. Richardson et al's J. S. Johnson 1, lcn. H. D Rummell et al's L. T. Clark 2, sd 1015 ft. C. J. Wrightsman et al's Collins 1, dr 2390 ft.

SUTTON COUNTY—Chesapeake Oil Co.'s Clarkson-Allison 1, dr 1670 ft.

TERRELL COUNTY — E. T. Williams et al's Sowden 1, crooked hole 95 ft.

UPTON COUNTY — Big Mesa Oil Co.'s University 1, dr 3260 ft. Choate-Henshaw & Marland Oil Co.'s Noelke 1, section 20, flowing sulphur water 2305 ft. Dixie Oil Co.'s E. S. Hughes 1, dr 225 ft; Burleson 2, top salt 565 ft, top lime 2040 ft, sd for shot with 150 ft oih 2185-2230 ft. W. W. Donnelly & L. E. Hults' H. M. Halff 1, co to deepen 3250 ft. Eastland Oil Co. and Johnson-McCamey's E. S. Hughes 1, section 12, lcn. Marland Oil Co.'s Sanger 2, top salt 555 ft, dr with 500 ft oih, 2195 ft; Burleson 1, lcn; Burleson 2, top salt 555 ft, dr 1640 ft; Burleson 3, top salt 535 ft, dr 1780 ft; Benton 1, sec 1, top salt 540 ft, dr 1600 ft. Plateau Oil Co. et al's Union 1, section 34, dr 2690 ft. Republic & Marland's Baker 2, rig. Sartain Bros. and Davis' Mrs. G. V. Bull 1, lcn. The Texas Co.'s Union 1, sd hfw 2220 ft. F. P. Zoch and Marland's Union 1, section 4, dr 3100 ft; E. P. Ruhman 1, section 100, plugging with hfw 3500 ft. Tidal Oil Co.'s Union 1, section 2, spudding.

WARD COUNTY — Chesapeake Oil Co.'s Edgar J. Marston 1, top salt 825 ft, dr 2600 ft. Gulf Prod. Co.'s Hutchings 1, hfw, dr brown lime 4355 ft.

WINKLER COUNTY—R. A. Westbrook et al's T. G. Hendricks 1, ur cas 675 ft. Lou Ladd et al's Ambrugy 1, lcn.

San Antonio Wildcats

BROOKS COUNTY — Bendeum et al's Wormerser Bros. 1, dr.

CALDWELL COUNTY—Van Keuren Oil Co. Ridout 1, dr. United North & South Oil Co.'s Kelly 1, dr; Tiller, dr. Gulf Prod. Co.'s J. M. Cardwell 1, dr.

DUVAL COUNTY — Mauer & Duggan's Hoffman 1, resumed dr at 1069 ft. Associated Oil Co.'s Sutherland 1, dr. Barkley & Meadows' No. 1, blk 4, sur 10, dk. Humble Oil Co.'s Walsh 5, dr 3780 ft, slight oil showing; Schalbert 4, coring at 2800 ft. Grayburg Oil Co.'s Halff 1, coring a sand at 3735 ft. J. K. Hughes Development Co.'s Peters 1, dr 3582 ft in sand. Seagraves and Moody's Mesquite 1, dr; Walsh 1, set liner, preparing to test; Benavides 1, dr in; Benavides 2, dr; Benavides 3, dr; Benavides 4, dr. Clintex Pet. Co.'s Benavides 3, dr Houston Oil Co.'s Benavides 2, dr; Benavides 3, dr; Benavides 4, dr.

DEWITT COUNTY — Yoro Development Co.'s Holzaphel 2, dr.

GUADALUPE COUNTY—Dunning & Armstrong's Dale 1, dr. Howell et al's Louis Willmann, dr. Smith-Payne-Bond's Duran 1, dr. Humble Oil & Refining Co.'s Wholfahrt 1, dr.

JIM WELLS COUNTY—Bendeum's Gallager 1, dr.

JIM HOGG COUNTY — Rydal-Rycade Oil Co.'s Allen 1, dr; Theodoro Vella 2, dr; E. J. Brasswell 1, dr. Beaucamp et al's Vela 1, dr. Bendeum's Wilbur Allen 1, dr. Magnolia Pet. Co.'s M. S. Bank 3, dr; Bank 11, dr. Simms Oil Co.'s Palacious 1, dr; Thompson 1, dr. Andrews Pet. Co.'s M. S. Bank 1, dr. Bailey et al's Palacious 1, dr. O. W. Killam's Martinez 34, dr; Holbein 1, dr; Bob Hinnant 1, dr. K. & S. Corp.'s Holbein 27, setting liner, prod. 3000 bbls at 2139 ft; Holbein 28, set cas; Holbein 29, prod. 45 million cu. ft. gas at 2140 ft; Weber 1, setting liner.

KARNES COUNTY — Earl B. Reynolds' Butler 1, bailing.

WILSON COUNTY — W. L. Brashear's Standish 1, dr.

ZAPATA COUNTY—Texas Co.'s Jennings 2, set cas at 3820 ft, preparing to dr in.

Louisiana Wildcats

Company, Well and Location	Initial Production Bbls.	Depth
COMPLETION		
Claiborne Parish—		
Triangle Drilling Co.'s Cupp 1, 22-23-5	* 1500	

DRILLING REPORT

BOSSIER PARISH — Arkansas Fuel Oil Co.'s Murray 1, 14-23-14, dr 2735 ft. Benton Synd.'s Bulkley 1, 9-20-13, sd 1182 ft. Collins & Woodley's Kilburn 1, 18-19-13, set 6-inch 2550 ft; L. & A. Oil Co. 1, 14-23-12, dk. Herndon et al's Burkhalter 1, 17-18-11, dr 130 ft. Square Deal Oil Co.'s Hale 1, 17-18-11, set 8-inch 1227 ft.

CADDO PARISH — Arkansas Natural Gas Co.'s Lane 1, 13-21-15, set 10-inch 2400 ft. Dixie Oil Co.'s Jolley 1, 27-22-15, dr 3935 ft; Robertshaw 71, 14-21-15, dr 2825 ft. Fortuna Oil Co.'s Bradford 1, 23-21-15, re-set surface cas, td 2451 ft; Levee Board 2, 8-20-15, ¾ million ft gas and 700 bbls sw 4023 ft; Spell 1, 29-21-15, dr 2875 ft. Gulf Ref. Co.'s Byrd 1, 2-19-14, rig; Lane 17, 13-21-15, 12 million ft gas and 500 bbls sw 3674 ft; Muslow 1, 30-21-15, set 8¼-inch cas 2553 ft; Tyson 1, 14-21-15, dr 8-inch plug 2406 ft. Ohio Oil Co.'s Ardis 1, 1-21-15, sd 4084 ft; E. K. Smith 18, 12-21-15, set 6⅝-inch 3864 ft; E. K. Smith 19, 12-21-15, dk. D. C. Richardson's Youree-Randolph 3, 13-20-15, dr 85 ft. The Texas Co.'s C. M. L. 42, 23-21-15, dr 2755 ft; Federal-Jeems Bayou B-1, 15-20-15, dr 4325 ft.

CALDWELL PARISH — Alexander et al's Cruse 1, 6-11-4e, dk.

CLAIBORNE PARISH—Gilliland Oil Co.'s Taylor B-10, 14-23-8, rig. Triangle Drilling Co.'s Hollifield 1, 32-23-5, lcn; Keen 1, 7-19-5, dr 3995 ft.

DE SOTO PARISH—Dixie Oil Co.'s Jenkins 1, 9-12-11, ur 6⅝-inch 3300 ft. Dresser et al's Williamson 1, 29-15-14, set 10-inch 165 ft. Magnolia Pet. Co.'s Bond 1, 27-12-11, dr 2720 ft. Ohio Oil Co.'s Cody 1, 34-12-16, lcn. Ulrey et al's Heard 1, 18-12-12, rig.

EVANGELINE PARISH—The Texas Co.'s Guillory 1, 36-3s-1w, lcn.

GRANT PARISH — Dowling & McCurry's Holmes 1, 20-9-1e, sw and show oil 1616 ft. Finn et al's Ball and Cody 1, 13-8-1w, set 10-inch cas 101 ft. Holmes et al's Swope 1, 18-9-2e, set 10-inch cas 100 ft. Hurdley et al's Ball 1, 32-7-1w, rig.

LINCOLN PARISH—Buckley & Palmer's Davis 1, 12-20-3w, dr 1650 ft. The Texas Co.'s Tremont Lumber Co. 1, 27-18-1w, dr 1410 ft.

MOREHOUSE PARISH—Boisseau et al's Sullivan 1, 11-21-7e, dr 2550 ft.

NATCHITOCHES PARISH—J. F. Palmer's Edenborne 1, 4-11-6, lcn.

RAPIDES PARISH—Hincy & Mack's Barrow 1, 29-5-2e, sd 1250 ft. Wheelen et al's Lanier 1, 3-4-3e, sd 1300 ft.

SABINE PARISH—Emlet et al's Bowman-Hicks 5, 8-7-12, sd 3267 ft; Bowman-Hicks 7, 11-7-14, rig.

UNION PARISH—Arkansas Fuel Oil Co.'s Reeves 1, 14-20-1e, dr 2715 ft.

WEBSTER PARISH — Arkansas Fuel Oil Co.'s Miller 1, 30-23-9, set 6-inch 2612 ft. Doern et al's Bolinger 1, 9-22-11, rig. Fortuna Oil Co.'s Bible 1, 8-20-9, testing 4265 ft. Humble O. & R. Co.'s Cox 1, 22-21-10, r 4214 ft. Magnolia Pet. Co.'s Sexton 1, 32-23-9, dk. Ohio Oil Co.'s Cox 1, 23-21-10, fsh 4829 ft.

WINN PARISH—Cedar Creek Pet. Co.'s Sullivan 1, 6-10-2w, sd 800 ft. Cherokee Pet. Co.'s Louisiana Central Lumber 1, 12-11-2e, dk; Urania Lumber 1, 13-11-1e, dr 1275 ft. Wilson et al's Louisiana Central 1, 24-13-1e, dk timbers. J. R. Hale's Eagle 1, 6-10-2w, sd 950 ft. J. H. Williams' Louisiana Central Lumber 1, 28-10-2w, rig.

Arkansas Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Nevada County—		
Magnolia Pet. Co.'s Johnson 1, 3-15-21	*	4600
Hempstead County—		
Grassy Lake Oil Co.'s Hempstead Gun Club 1, 27-12-27	*	2275
Union County—		
Liberty Oil Co.'s Davis 1, 21-16-14	*	2180

DRILLING REPORT

ASHLEY COUNTY—Pine Prairie Oil Co.'s Pine Prairie 2, 1-17-6, dk. Rhodes et al's Bledsoe 1, 20-15-7, sd 2554 ft.

CALHOUN COUNTY—Magnolia Pet. Co.'s Calion 1, 29-15-14, dr 4260 ft. Southern Crude Oil Purch. Co.'s Calion 1, 1-16-14, dr 200 ft.

CLARK COUNTY—Heath et al's Arnold 1, 12-9-20, sd 600 ft. Wheelen Oil Co.'s Brown 1, 35-10-20, dr 2225 ft.

CLEVELAND COUNTY—Dedman et al's Moore 1, 28-9-10, sd 1757 ft.

COLUMBIA COUNTY — H. W. Aarnes' Brown 2, 13-15-20, dr 3275 ft. Kent & Fullenwider's Wingfield-Moody 1, 18-19-19, dk tmbrs. Ky-Ark Pet. Co.'s Doss 1, 29-19-20, sd 1860 ft. Phillips et al's Davis 1, 14-18-21, sd 2850 ft. Pluto Oil Co.'s Robinson 2, 23-18-23, dr 1000 ft.

DALLAS COUNTY—McNiel et al's Owens 1, 29-10-16, sd 2100 ft.

DREW COUNTY—McClintock et al's Ogle 1, 35-13-5, sd 1842 ft.

HEMPSTEAD COUNTY — Burton et al's Garland 1, 23-10-25, sd 1865 ft

LA FAYETTE COUNTY—Arkansas Fuel Oil Co.'s Red River 3, 7-19-24, lcn. Humble O. & R. Co.'s Bodcau Fee 3, 19-16-23, rig. Ken-Saw Pet. Co.'s Red River Valley 2, 3-20-24, fsh 2820 ft.

LITTLE RIVER COUNTY—Grote et al's Allen 1, 2-13-29, sd 2932 ft.

MILLER COUNTY—Copeland et al's Wiseman 1, 36-15-27, fsh 2650 ft. Lenze et al's Dale 1, 25-15-26, dr 1350 ft.

NEVADA COUNTY—Greeson et al's Tidwell 1, 22-13-21, sd 1200 ft.

OUACHITA COUNTY — Buffalo Oil Co.'s Davis 2, 22-15-19, set 6-inch 1512 ft. Equity O. & D. Co.'s Morgan 1, 27-15-19, wosr 2175 ft. Gossett et al's Cosden 1, 21-15-19, to deepen, 1460 ft; Davis 1, 26-15-19, sd 1672 ft; Thompson 1, 22-15-19, sd 1465 ft. Harrell et al's Moline Timber 1, 32-11-17, water flow 910 ft. Van Diver et al's Yarbrough 1, 22-14-17, sd 1600 ft. J. D. Reynolds' Davis 1, 22-15-19, plugging back to 1512 ft; Thompson 1, 22-15-19, sw 1476 ft.

UNION COUNTY—Bondurant et al's Garner 1, 8-18-12, sd 1820 ft.

Be Careful In The Selection Of Lubricants For Your Motorized Equipment

Passenger cars and trucks of different makes vary considerably in type and design.

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The proper lubrication of motor equipment does not mean only the lubrication of the engine cylinders—it means the complete lubrication of all of the moving parts of the motor. Much harm can result from the use of too heavy an oil in a pressure system not designed to handle it—also where the "splash" system is used, the oil must not only flow easily, but must atomize readily so as to reach certain bearings which can be lubricated only by a fine mist.

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Rocky Mountain Wildcats

WYOMING—Producers & Refiners Corp.'s No. 1, Sugar Creek, sec 36-22-86, dr 2210 ft; No. 1, Clay Basin, sec 22-3-24, dr 4760 ft; No. 1, St. Mary's Dome, sec 9-21-84, sd 772 ft. Continental Oil Co.'s No. 1, Wallace Creek, 15-34-87, dr 2882 ft. Ohio Oil Co.'s No. 2, Byron, 33-56-98, cemented 1860 ft; No. 3T, Hidden Dome, 31-48-90, co 2529 ft. Prairie Oil & Gas Co.'s No. 1, Gooseberry Dome, 32-47-100, running 8¼-inch cas at 2868 ft; No. 2, Belle Springs, 6-33-89, sd 2561 ft. Union Oil Co.'s No. 1, Sheep Creek, 10-82-92, sd 2305 ft; No. 1, Fremont County, 15-5-1, rig burned, td 1580 ft. Fairway Oil Co.'s No. 1, Crazy Woman, 7-47-82, waiting on tools to spd. Bradford Oil Co.'s No. 2, Emigrant Gap, 23-34-82, resuming operations at 2650 ft. Westland Oil Co.'s No. 1, Red Dome, 35-55-95, sd. Atlas Oil Co.'s No. 1, Split Hill, 31-37-67, sd at 601 ft. West Zimmerman Oil Co.'s No. 1, Zimmerman Butte, 28-44-93, sd at 300 ft. Sandberg Pet. Co.'s No. 1, Spring Valley, sd at 310 ft. Texas Prod. Co.'s No. 1E, Seven Mile Dome, 8-17-77, dr 620 ft. Associated Oil Co.'s No. 1, Glendo, 20-29-68, sd at 1310 ft. Reece Oil Co.'s No. 1, LaBarge, 8-26-113, dr at 525 ft; No. 1A, LaBarge, 27-27-113, dr at 475 ft. Kinney Coastal Oil Co.'s No. 3, Dry Creek, 27-6-3, rotary rig being built at 2000 ft.

MONTANA—Ohio Oil Co.'s No. 1M, 13-6-17, dr at 2660 ft. John's Interests' No. 1, Porcupine Dome, 24-10-39, sd at 1200 ft. Stellar Oil & Gas Co.'s No. 6, Porcupine Dome, 26-10-39, sd at 1340 ft; No. 8, Porcupine Dome, 20-10-39, rig up. Montana Oil & Gas Co.'s No. 1, Loesch Dome, 28-8-45, sd at 1079 ft. Murray Bros.' No. 1, Mosher Dome, 34-3-24, dr at 410 ft; No. 3, Mosher Dome, 34-3-24, dr at 525 ft.

COLORADO—Texas Production Co.'s No. 1E, Rangeley Dome, 30-2-102, fsh at 3035 ft. A. A. Rollerstone Co.'s No. 1, Larimer County, 6-10-69, cas at 1550 ft; No. 1D, Arapahoe County, 1-51-65, fsh at 1480 ft. Mutual Oil Development Co.'s No. 1, Fremont County, 34-17-70, shutting off water at 3215 ft. Midwest Refining Co.'s No. 1, Rangeley Dome, sdtr at 2650 ft. Gypsy Oil Co.'s No. 1, Mesa County, 9-9-101, dr at 3675 ft. California Oil Co.'s No. 1, Cheyenne County, 19-16-48, co at 4575 ft. White Oil Co.'s No. 1, Elbert County, 17-10-61, sp. H. H. Temple's No. 1 JUP, Arapahoe County, dr 285 ft. Associated Oil Co. of Colorado's No. 1W, Tinmath Dome, 4-6-68, dr at 4710 ft. Red Creek Oil Co.'s No. 1, El Paso County, 19-17-67, dr at 2212 ft. Gypsy Oil Co.'s No. 1M, Book Cliffs, 9-9-101, sd for winter.

NEW MEXICO—Maljamar Oil & Gas Co.'s No. 1, Lea County, 21-17-32, running 8¼-inch cas at 3125 ft; No. 1G, Lea County, 21-17-32, running 8¼-inch cas at 300 ft; No. 1GM, Lea County, 5-17-32, dr 350 ft; No. 1P, Lea County, 33-17-32, dr 325 ft; No. 1B, Lea County, 15-17-32, new lcn. Empire Gas & Fuel Co.'s No. 1, Eddy County, 31-24-27, will be plugged back to 2302 and shot. Marland Oil Co.'s No. 1BR, San Miguel County, dr at 3915 ft. Union Oil Co.'s No. 1B, Colfax County, 23-31-18, temporarily sd at 4411 ft. Congress Oil Co.'s No. 1, San Juan County, 34-29-11, dr 1050 ft. Navajo Oil Co.'s No. 1, Guadaloupe County, 10-3-17, dr 110 ft. Lexi Oil Co.'s No. 1, San Juan County, 19-30-10, abn 2005 ft.

UTAH — Midwest Refining-Utah Southern No. 1, Cane Creek Dome, dr at 175 ft. Home Oil Co.'s No. 2BC, Bitter Creek Dome, Grand County, sp. Marland Oil Co.'s No. 1C, Green River Dome, 35-21-16, dr at 2620 ft. Crescent Eagle Oil Co.'s No. 1, Grand County, 4-22-19, running 4-inch cas at 3790 ft. Deseret Pet. Co.'s No. 1 San Juan County, 3-30-20, wosr. Embar Oil Co.'s No. 1, Moab Dome, 22-25-21, spd.

Southern California Wildcats

ARTESIA—A. L. Benson's No. 1, sd 4238 ft.

BELLFLOWER—California Pet. Co.'s Producers 1, sd 4420 ft; Producers 2, sd 4774 ft.

BREA CANYON—Shell Co.'s Menchago 1, dr 2020 ft.

BURBANK—Jeffries-Overton's No. 1, dr 896 ft.

BIXBY HILLS—National Security's No. 1, sd 5151 ft. Orange Co. Pet. Co.'s No. 1, sd 2820 ft

CHATSWORTH—Russel Pet. Co.'s Joughin 1, sd 4171 ft.

CLAREMONT—Claremont Oil & Gas Co.'s No. 1, dr 915 ft.

EAGLE ROCK—Calwin Oil Co.'s No. 1, dr 5795 ft.

EL SEGUNDO—Ryder Oil Syndicate's No. 1, dr 985 ft.

HAWTHORNE—Winwell Oil Co.'s Dome 1, pulling 3-inch casing 5586 ft.

HYDE PARK—Marland's Connolly, dr 4500 ft.

IRVINE—Valny Oil Co.'s Irvine 1, sd 4247 ft.

KEYSTONE—W. E. Garner's Community 1, sd 685 ft.

LANCASTER—Rudd-Asmussen's No. 1, dr 963 ft.

LA MIRADA—Union Oil Co.'s McNally 1, dr 4545 ft.

MANHATTAN—Julian Pet. Corp.'s Hellman Trust 1, sd, cemented 745 ft; M. & P. 1, rig completed. Bardeen Oil Co.'s Manhattan-Pac. 1, will put in cement retainer plug at 4409 ft.

MAYWOOD—Magnolia Pet. Synd.'s 1, sd 2650 ft.

NEWHALL-SAUGUS—Union Oil Co.'s Saugus, ready to resume operations at 2970 ft. Amalgamated Oil Synd.'s 2, sd. Marland Oil Co.'s Wickham 1, bailing 2717 ft. W. G. McAdoo's No 1, sd 1270 ft. Milham Exploration's Conroy 2, dr 3970 ft. W. W. Stabler's Castaic 1, dr 1525 ft. Temple-Lefevre's Castaic 1, dr 1996 ft.

PACOIMA—W. O. Brubaker's Fernando 1, drill pipe stuck 2575 ft.

PLAYA DEL REY— Milham Exploration Co.'s 2, dr 4100 ft.

SAN JOAQUIN HILLS—Bardeen Oil Co.'s No. 1, pumping about 5 barrels, 4100 ft. Bardeen Oil Co.'s No. 2, sd 1904 ft. D. & B. Oil Co's Amar 1, dr 1579 ft.

SAN JUAN CAPISTRANO—A. & P. K. Synd.'s No. 1, sd 2560 ft.

SAN PEDRO-PT. FERMIN—San Pedro-Pt. Fermin Oil Co.'s No. 1, fsh 3723 ft.

TELEGRAPH CANYON—M. & J. M. No. 1, dr 1960 ft.

VAN NUYS—Van Nuys Community's No. 1, fsh 2935 ft.

RIVERSIDE COUNTY—Beaumont Midway Grapehill's 1, sd 5355 ft. Beaumont-Riverside's Martin 1, sd 1266 ft. Corona Oil & Gas Test's No. 1, sd 316 ft. Spindletop Oil Synd.'s No. 1, dr 2043 ft. Trabuco Oil Co.'s 1, fsh 370 ft.

SAN BERNARDINO COUNTY—Arrowhead Development Co.'s No. 1, sd 1410 ft. Burgess & Goodale Riggin's No. 1, dr 2490 ft. Como Oil Co.'s Cajon 1, set 6¼-inch 1200 ft. Dome of Chino Valley M. & C. 1, sd 1945 ft. Del Rosa Oil Co.'s No. 1, sd 2460 ft. Hesperia Oil & Gas Co.'s No. 1-A, dr 3275 ft. Mahala Oil & Gas Co.'s No. 2, dr 4732 ft. Victor Valley Landowners No. 1, sd 1740 ft. Western Pacific Oil Co.'s No. 2, sd 3260 ft. Zenith Oil Co.'s No. 3, dr 250 ft.

Northern California Wildcats

ANTELOPE PLAINS—Marland Oil Co.'s Lazard 1, dr 1510 ft. Union Oil Co.'s M. & L. 1, dr at 2200 ft.

BUTTONWILLOW— Milham Exploration's Sisson 1, dr 1920 ft.

DELANO — Chanslor-Canfield's Jasmine, sd, cemented 3874 ft.

DEVILS DEN—Devils Den Prod. Co.'s No. 3, dr 250 ft. Marathon Oil Co.'s No. 1, idle, 4320 ft. Robins Oil Co.'s No. 1, dr 1525 ft.

GOULDS HILLS — Hastain-Purman, produced 5 barrels oil at 1460 ft, dr to 1485 ft, picked up another sand; test of deeper zone now being made. Mendocino-Midway's No. 1, dr 995 ft. Myrtle F. Oil Co.'s No. 1, pumping little oil, 881 ft. Rhoads Oil Co.'s No. 1, pumping about 10 barrels oil, 1326 ft.

KETTLEMAN HILLS—Standard Oil Co.'s San Francisco & Fresno Land Co., sd 5541 ft.

SHALE HILLS—Big 8 Oil Co.'s No. 1, standing idle at 945 ft. Browngold Oil Co.'s No. 1, standing idle, 3945 ft. Samuel Sanborn's No. 1, standing idle 835 ft. Shale Hills Oil Co.'s No. 1, standing idle, 1400 ft.

ROSEDALE—A. G. Swartz's No. 1, dr 620 ft.

TEMBLOR—Associated Oil Co.'s No. 1, dr 3045 ft. Hovey Hills Oil Co.'s No. 1, dr 2380 ft. C. L. Nabors No. 1, reaming 1000 ft.

WASCO—Main Oil Co.'s No. 1, pulling 4½-inch to redrill; No. 2, standing 5276 ft; No. 3, rig.

EASTERN KERN COUNTY—Crusaders Oil Co.'s No. 1, dr 1960 ft; No. 1, dr 247 ft.

ELK HILLS—United Oil Co.'s Slayter, sd 5443 ft. Interstate Oil Corp.'s No. 1, standing idle 5156 ft. Naval Reserve Oil Co.'s No. 1, standing idle 3676 ft. North Elk Hills Oil Co.'s No. 1 standing idle 4002 ft.

MT. POSO CREEK—G. & R. Buckner's No. 1, standing idle 410 ft. G. & R. Buckner's No. 1, standing idle 520 ft. Modec Pet. Co.'s No. 1, abn 1774 ft. Shell Co.'s Vedder 1, dr 1800 ft.

McKITTRICK—Lacy-Esper Pet. Co.'s McKittrick Front, sd at 3115 ft. Barnsdall Oil Co.'s No. 1, sd, idle at 4450 ft. Goldman & Sons' No. 1, sd, idle at 3030 ft. Hall & Baker's No. 1, idle at 1024 ft. Ridge Oil Co.'s No. 1, dr at 2100 ft. Wellington Oil Co.'s No. 1, dr at 250 ft. Sisson-Wisdom's No. 1, fsh at 200 ft.

MIDWAY—Associated Oil Co.'s No. 1, dr at 3045 ft. Belridge Oil Co.'s No. 1, bailed wet, shot 6¼ run 30 sks cement.

SUNSET—Bell-Wrightsman's, dr to 5330 ft, producing from 12 to 14 bbls oil. Fresno-Sunmaid Oil Co.'s No. 1, showing water at 4005 ft. King G. Gillette's No. 1, rigged up. Milham Exploration Co.'s No. 1, spudded in.

CLOVIS—Fresno-Medera Oil Co.'s No. 1, sd at 3680 ft.

HURON—Associated Oil Co.'s No. 1, dr at 1674 ft.

KERMAN—Associated Oil Co.'s No. 1, sd, idle at 5735 ft.

RAISIN CITY—Fresno-United Oil Co.'s No. 3, lcn 300 ft east of No. 2, Kings County.

KETTLEMAN HILLS—Associated Oil Co.'s No. 1, sd at 2043 ft. Bolsa Chica Oil Co.'s No. 1, bailing at 1798 ft. Marland Oil Co.'s No. 1, re-dr at 5390 ft. Hugh McPhail's No. 1, dr at 1690 ft. South Coalinga Oil Co.'s No. 1, dr at 400 ft.

VENTURA COUNTY—A. B. Gentry Corp.'s S. E. Camarillo, rig. Alexandria Drilling Co.'s No. 1, sd, idle at 1716 ft. Chanslor-Canfield's No. 1, sd, cmt at 3825 ft. Henry R. Dabney's No. 1, dr to 1300 ft, repairing roads. Ford-Chalmers' No. 1, small showing at 1870 ft. Hoyt S. Gale's No. 2, dr at 3000 ft. Hopper Canyon Oil Co.'s No. 1, dr at 4325 ft. Milham Exploration Co.'s No. 1, sd, cmt at 3800 ft. Montecito Oil Prod.'s No. 1, trying to locate H20. Ring Pet. Synd.'s No. 1, temp sd at 3760 ft. Shell Co.'s Berlywood 1, dr at 3125 ft. Sentinel Oil Co.'s No. 1, dr at 200 ft. Sespe Oil Co.'s No. 1, fsh at 3020 ft.

SANTA BARBARA COUNTY—Geo. F. Becker's No. 1, dr at 1870 ft. Channel Oil & Dev. Co.'s No. 1, idle at 4820 ft. Nugent Oil Co.'s No. 1-A, sd at 4540 ft.

SAN LUIS OBISPO COUNTY — Arroyo Grande Pet. Co.'s No. 1, underreaming at 3705 ft. Barneybert Oil Co.'s No. 1, dr at 3780 ft. Carrissa Oil Co.'s No. 1, dr at 1860 ft. Panorama Oil Co.'s No. 1, dr to 1250 ft, re-dr at 1196 ft.

YOLO COUNTY—San Martinez Oil Co.'s No. 1, dr at 5800 ft.

Oklahoma Wildcats

ATOKA COUNTY—Hansen et al's Dabney 1, C SE NE 17-4-11, sd 3845 ft.

BECKHAM COUNTY—W. R. Duke's McGee 1, NWc SW SE 25-8-22, set 8-inch 950 ft.

Kadane et al's Van Vester 1, SE NE NE 25-8-22, no report.

BLAINE COUNTY—Okama Oil Co.'s Eklemeir 1, SWc 21-15-10, sd 2610 ft.

CADDO COUNTY—Continental Diamond's Funk 1, SE SE 1-5-9, rig.

CANADIAN COUNTY — Thos. Revelle's Dawson 1, NEc SE NW 34-13-9, ur 5-inch 3680 ft. O. D. Jones' Sanders 1, C NE NE NE 29-11-7, sd 2150 ft.

COMANCHE COUNTY — Daisy Belle Oil Co.'s Warehime 1, C SW SW SW 25-4-9, tools away. Mid-Kansas O. & G. Co.'s Hendricks 1, C S L SE 33-3-10, sd 1812 ft. Becker & Reed's Hind 1, NEc NW 30-4-10, fsh 1850 ft. J. R. Abernathy's No. 1, NEc NW 24-5-11, lcn. Mid-Kansas O. & G. Co.'s Cox 1, NEc SE NE 30-1-13, fsh 1242 ft.

COTTON COUNTY — W. B. Lindsey's Cooper 1, SE NW 12-4-10, sd 1080 ft.

GARFIELD COUNTY—Haley, Garber & Pusle's Chevelier 1, NWc SW 6-23-4, dr 1525 ft. Shaffer & Amerada's Brunken 1, NEc 32-24-4, dr 2285 ft. Bu-Vi-Bar's Johnson 1, SWc 31-23-4, dr 3297 ft. Sinclair O. & G. Co.'s Fee 1, SWc SW NE 2-20-5, dr 3112 ft. Wilcox O. & G. Co.'s Zalondek 1, C SE SE SE 22-24-6, td 2000 ft.

GRANT COUNTY—Dedman, Flannagan & & Hennage's Sherrer 1, NEc SW 16-26-3, sd 515 ft. Lambert & Mink's Tabor 1, C SE NE SE 23-26-3, spd and sd. Gypsy Oil Co.'s Meugge 1, SEc NW 33-26-3, dr 3342 ft. Marland Oil Co.'s Webb 1, C NW NE NE 2-27-3, dr 4180 ft.

HUGHES COUNTY — Parmenter et al's Stewart 1, C SE SW SW 14-7-9, rig. Henry Greis & Kerr's Pearson 1, C SE NE NE 30-5-4, cd 3500 ft.

JEFFERSON COUNTY—Godley Oil Co.'s Woodworth 1, C NE NW 36-5-4, dr 3258 ft. Oasis Drilling Co.'s Major 1, C SE SW 34-5-6, spd.

KAY COUNTY—Tonkawa Dev. Co.'s McDaniels 1, C SE SE SE 15-25-1, ur 12-inch 965 ft. Souligny Bros.'s School land 1, NEc NW 16-26-3, dr 3636 ft. Davis Drilling Co.'s Street 1, C NE NE NE 31-28-3, fsh 3710 ft.

KINGFISHER COUNTY—Bu-Vi-Bar's No. 1, SEc NW 11-19-9, lcn.

LINCOLN COUNTY—Douglas Oil Corp.'s Ewing 1, NWc 7-13-3, fsh 4515 ft. Ruby et al's Cull 1, NEc NW 36-15-4, sd 4721 ft for cas. Carter Oil Co.'s Meeks 1, SWc 26-16-2, lcn abn. Flynn, Morgan & Young's Rittenhouse 1, NWc SE 26-16-5, dr 1225 ft.

LOGAN COUNTY—Blackford O. & G. Co.'s Lair 1, C S L N½ SE 28-16-1, sd 1675 ft. Haley & Pioneers' Quair 1, SWc SE 33-18-3, sd 1557 ft. Franklin Oil Association's Moore 1, SWc SE 28-18-4, dr 3905 ft. Bryan & Emery's No. 1, NWc SE 33-19-4, spd.

LOVE COUNTY—Pender et al's Gray 1, C SE SE 19--9-1, dr 2200 ft.

MAJOR COUNTY—Franz & Slick's Gray 1, C NW 36-21-11, sd 1000 ft.

MARSHALL COUNTY — Ramsey Bros.' Griffin 1, SW SW 10-5-5, dr 1415 ft. United "8," Oil Co.'s Marshall 1, SW SW 30-5-6, sd 585 ft.

NOBLE COUNTY—Miller's 101 Ranch 1, NEc 1-24-1, dr 1665 ft.

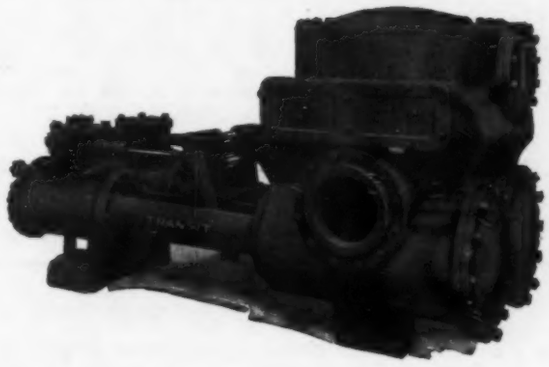
POTTAWATOMIE COUNTY — Davis Detrick's McCathy 1, SEc NW 10-6-2, ur 5-inch 3990 ft. Shaffer et al's Ives 1, NWc SE SE 12-10-3, dr 3520 ft. McCullough's Madgett 1, NWc 25-10-4, cemt. 10-inch 2410 ft. Central National Oil Co.'s Toney 1, C SW SW SW 28-10-4, sd 755 ft. Texas Co.'s Allenbaugh 1, SEc SW 3-11-5, dry 4752 ft.

SEMINOLE COUNTY — Barnsdall-Phillips' Ingram 1, NEc SW 10-9-5, dr 2414 ft. Pure Oil Co.'s Jonah 1, C E L NW NW NE 15-9-7, dr 2215 ft.

TILLMAN COUNTY—Oasis Drilling Co.'s Snelling 1, SEc SE SE 13-1-6, sd 1400 ft. Tipton et al's Riverbed 1, C NE NE 1-5-5, sd 3200 ft.

TEXAS COUNTY—H. F. Wilcox's Zea 1, SWc SE 29-3-13, drilling 2222 ft; Hovey 1, SEc SE 21-4-14, dr 2144 ft. Valerius O. & G. Co.'s No. 1, NWc SW 18-3-12, sd 170 ft; No. 2, SEc SE 32-5-12, sd 700 ft. Foster, Reiter & Brann's No. 1, NE 10-2-11, lcn. Foster-Reiter's No. 1, SEc SW 9-3-15, dr 300 ft. Allison, Garber & Pulse's No. 1, 4-1-12, dr 700 ft.

NEXT TO GRAVITY



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Kansas Wildcats

BARBER COUNTY—R. B. Brown's Martin 1, NWc 14-34-11, dr 3390 ft. Skelly et al's Richardson 1, SWc 30-30-14, dr 1000 ft.

BARTON COUNTY—John Herron's Eeverleigh 1, SEc NE 22-18-3, sd 4550 ft. Huffins et al's Smith 1, NE SE NE 17-19-11, dr 4700 ft.

BUTLER COUNTY—Eyessen's Varner 1, NEc SW 29-25-4, rig. Manhattan Oil Corp.'s Daley 1, SWc SE 25-24-6, lcn; Potts 1, NEc 29-24-7, rigging. W. M. Neeley O. & G. Co.'s Kiser 1, SW SE SW 12-26-7, dr 2755 ft.

CHASE COUNTY—Derby Oil Co.'s Newman 1, NWc SW 24-20-9, ur 2295 ft, show 2048-97 ft.

CLOUD COUNTY—Concordie Oil & Prod. Co.'s Murdock 1, SEc 6-6-4, sd 3030 ft.

COWLEY COUNTY — Pettee & Banks' Withers 1, NEc NW 32-30-5, tl 2915 ft. Phillips Pet. Co.'s Hunt 1, NEc 16-34-5, dr 3250 ft. Branson et al's White 1, SEc SW SW 7-30-6, dr 1155 ft. S. H. E. Pet. Co.'s Day 1, NE NW 24-34-6, dr 3340 ft.

GRAHAM COUNTY — Gruien & Shilers' Baker 1, NWc SE NW 17-10-24, rig.

LYON COUNTY—Connell et al's Ball 1, SEc SW NW 23-18-10, dr 1200 ft. Abel et al's Rednoor 1, SWc 11-18-12, lcn. Abel & Finney's De Long 1, NWc SW SW 22-18-12, sd 1240 ft. Culp et al's No. 1, SWc SE 25-19-10, rig. Bush's Eskridge 1, NE SE 36-19-11, sd 1148 ft. Troxell et al's Williams 1, NE SW 12-20-10, sd 1375 ft. Gordon et al's Stilwell 1, SEc 24-20-11, spd. Connell et al's Lewis 1, SWc 4-20-11, lcn. Miss. Valley Oil Co.'s Neuman 1, C NW SE 25-20-11, dr 985 ft. R. G. Gillespie's Flading 1, SWc NE 9-20-12, dr 1900 ft. Connell et al's Welch 1, NEc SW 22-20-12, spd and sd. Gashe & Balliere's Stratton 1, SEc NW 32-20-13, lcn. Haviland et al's No. 1, SE NE NE 7-20-13, lcn. Sheedy et al's Morris 1, NWc SE 19-21-10, td 2265 ft. S. W. Pet. Co.'s Vorhees 1, SWc NW 34-21-10, lime 2118-2143 ft. Miss. Valley Oil Co.'s Langley 1, C SW SE 4-21-11, fsh 1200 ft.

OSAGE COUNTY—Baker et al's Lease 1, C SE SE 3-15-15, sd 260 ft. Rogers & Bittle's Berth 1, SEc NW SE 28-17-15, lcn. Mull-Vit Dev. Co.'s Neil 1, NWc NE SW NW 8-17-17, sd 2835 ft.

RENO COUNTY—Frank Hopper's Stevens 1, NWc 7-26-7, 2950 ft.

RILEY COUNTY—Pawnee O. & G. Co.'s Marks 1, SWc NE NW 26-10-6, dr 2400 ft.

ROOKS COUNTY—Keys Pet. Co.'s Saidon 1, NWc SW SE 7-2-20, spd and sd. C. Findeiss et al's Minx 1, SWc 25-10-9, sd 3669 ft.

SALINE COUNTY—Thrall et al's Halquest 1, SEc NE NE 15-15-4, sd 1010 ft.

SUMNER COUNTY—Roxana Pet. Corp.'s Miller 1, NE SW 17-32-2, ts 2950-60 ft swab 65 bbls. Wentz Oil Corp.'s Schwartz 1, NWc NE NE 27-34-2, no report.

WABAUNSEE COUNTY—Williams et al's Henderson 1, NEc SW NE 15-13-12, sd 3600 ft.

WOODSON COUNTY—Alter et al's Hunt 1, NWc SW 13-25-14, sd 700 ft.

PERMITS GRANTED FOR NEW WELLS

Weekly Comparison of New Wells

Following is a condensed table giving a comparison of permits or locations made for new wells in Kansas, Oklahoma, Arkansas, Louisiana, Texas and California:

Number of Wells for Week Ending

	Dec. 25	Jan. 1	Jan. 8	Jan. 15	Jan. 22	Jan. 29	Feb. 5	Feb. 12	Feb. 19	Feb. 26	Mar. 5	Mar. 12	Mar. 19	Mar. 26	April 2	April 9
Kansas	32	40	30	23	28	44	24	31	59	30	18	37	55	50	39	24
Oklahoma	95	76	78	60	92	85	71	85	100	66	140	91	114	74	136	114
Arkansas	15	10	18	10	12	13	28	11	28	13	28	21	31	26	30	16
Louisiana	7	12	15	17	20	23	23	37	23	21	32	55	29	29	36	27
Texas	199	167	111	162	153	150	146	176	201	233	170	244	234	169	277	172
California	40	17	25	28	35	35	31	34	26	35	34	19	41	22	36	52
Total	388	322	277	300	340	350	323	374	437	398	422	467	504	370	554	405

CALIFORNIA

Belridge—Lacy-Esper Pet. Co.'s No. 1, 18-29-22.

Coalinga—Superior Oil Co.'s No. 8-B, 31-20-15.

Dominguez—Shell Co.'s Reyes 3-B, 33-3-13. Union Oil Co.'s Callender 14, 33-3-13.

Elk Hills—Standard Oil Co.'s Kern Co. Lease No. 1, 31-30-25.

Huntington Beach—Standard Oil Co.'s Huntington Beach 44, 3-6-11. Standard Oil Co.'s Huntington Beach 45, 3-6-11.

Inglewood — Associated Oil Co.'s Vickers 2, 7-2-14. Standard Oil Co.'s L. A. Invest. 1, No. 43, 17-2-14.

Kern County—R. B. McIlroy's No. 1, 3-10-23.

Kern River—A. G. Schwarz' No. 1, 25-29-26. Geo. F. Getty's Grimes 2, 32-27-27.

Long Beach—Transport Oil Co.'s No. 15, 13-4-13. W. P. Temple Oil Co.'s No. 2, 13-4-13. Wilshire Oil Co. Inc.'s Wilshire C-2, 13-4-13. W. F. Garrison's Felecia M. Hogan 1, 19-4-12. W. P. Temple Oil Co.'s No. 5, 13-4-13. Wilshire Oil Co. Inc.'s Wilshire C-1, 13-4-13. Francis D. Adams No. 1, 13-4-13. Marine Corp.'s No. 60, 13-4-13.

Midway—The United Oil Co.'s No. 1, 6-31-23. Honolulu Cons. Oil Co.'s No. 25, 4-32-24. Big Ten Oil Co.'s No. 25, 36-32-23. Security Dev. Co.'s No. 11, 15-31-22. Pacific Oil Co.'s No. 54, 33-31-24. Pacific Oil Co.'s No. 13, 33-31-24. Midland Oilfields Co., Ltd.'s Thornber B-3, 34-31-24. Valley Oil Co.'s No. 6, 14-31-22. Associated Oil Co.'s 71, 2-31-22. C. C. M. O. Co.'s 14, 36-31-22. The Springs Co.'s 28-1, 28-31-24. Honolulu Cons. Oil Co.'s 42, 4-32-24. California Pet. Corp.'s Dorothy 5, 34-32-24.

Monebello—Standard Oil Co.'s Baldwin 66, 6-2-11. Standard Oil Co.'s Baldwin 67, 6-2-11.

Rosecrans—Union Oil Co.'s Rosecrans 7, 19-3-13. General Pet. Corp.'s Vaughn 3, 18-3-13.

Napa County—Griffiths Oil Co.'s No. 6, 7-8-3.
Barnsdall Oil Co.'s O'Dea 11, 18-3-13. Barnsdall Oil Co.'s O'Dea 12, 18-3-13.

Sunset—Midway Oil Co.'s 369-A, 35-12-24. Anchor Oil Co.'s No. 25, 2-11-24. Lewis Pet. Co.'s G-M 14, 34-12-24.

Torrance—C. C. M. O. Co.'s Del Amo 68, 8-4-14. Superior Oil Co.'s Torrance 29, 24-4-14. C. C. M. O. Co.'s Del Amo 29, 9-4-14

Ventura—Shell Co.'s Edison 5, 28-3-23. Shell Co.'s Gosnell 8-A, 27-3-23. General Pet. Corp.'s Barnard 3-A, 28-3-23. C. C. M. O Co's Hobson 1-A, 22-3-24

Ventura County—Milham Exploration Co.'s Sexton 1, 19-3-23.

Whittier—South Slope Oil Co.'s Childs 3, 16-2-11.

OKLAHOMA

Carter County—Magnolia Petroleum Company No. 4 Lohman, southwest of the northwest of the northwest of 23-2s-3w. Amerada Petroleum Corporation No. 17 Fish, northeast of the southwest of the southeast of 28-5s-1e.

Comanche County—Shaw & Rathke No. 1 Allen, northwest corner of the northeast of the southwest of the southwest of 24-2n-10w.

Creek County — Sapulpa Refining Company No. 2 C. Jack, center of the east line of the southeast of the northwest of 1-18-7. Twin State Oil Company No. 3 Vidaway, northeast of the southeast of the southeast of 7-18-7; old well deepened. Shaffer Oil & Refining Company No. 13 Fisher, old well deepened, center of the southeast of the northeast of 18-18-7. Alvard & West No. 2 Freeman, center of the south line of the northeast of the southwest of 14-17-8. Barnsdall Oil Company No. 2 Mitchell, center of the north line of the southwest of the southeast of 22-17-8. Pure Oil Company No. 1 Steele, northeast corner of the southwest of 6-15-7, old well deepened. C. G. Tibbens No. 10 Sewell, northwest corner of the northeast of the northeast of 13-14-8. C. G. Tibbens No. 11 Sewell, northeast of the northwest of the northeast of 13-14-8. J. A. Hull No. 2 Walker, northwest corner of the southeast of the southwest of 21-18-9. Commercial Central Oil Company No. 1 Gaconey, southeast corner of the southwest of the northwest of 11-17-10. Lillystrand No. 1-A Smith, southeast corner of the southwest of the southeast of 11-17-10, twin. J. H. Wright No. 7 Tahkaney, center of the south line of the southeast of the northwest of 24-17-10. H. C. Wilson No. 1, Bucktrot, southeast corner of the southwest of the southwest of 26-17-10, old well deepened. C. G. Tibbens No. 2 Lucas, twin, northwest corner of the southwest of the southeast of 31-15-9.

Garfield County — Mid Continent Petroleum Corporation and Marland Oil Company No. 6 School land, old well deepened, southeast of the northeast of the southeast of the southeast of 13-22-4w; No. 46 School land, old well deepened, northeast corner of the northwest of the northeast of the southeast of 13-22-4w; No. 63 School land, center of the east line of the southeast of the northeast of the southeast of 13-22-4w; No. 64 School land, center of the north line of the northwest of the northeast of the southeast of 13-22-4w; No. 65 School land, southwest corner of the northeast of the southeast of 13-22-4w. Sinclair Oil & Gas Company No. 41 Walker (North), center of the south line of the southwest of the southeast of the northeast of 13-22-4w; No. 42 Walker (North), center of the south line of the northwest of the southeast of the northeast of 13-22-4w. Roxana Petroleum Corporation No. 7 Schroeder, old well deepened, southwest corner of the northwest of the northwest of the southwest of 18-

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22-3w; No. 15, Schroeder, old well deepened, northeast corner of the northwest of the southwest of 18-22-3w; No. 25 Schroeder, old well deepened, northeast corner of the southwest of the southwest of 18-22-3w; No. 10-A Schroeder, center of the north line of the southwest of 18-22-3w; No. 4-H Schroeder, southwest of the northwest of the southwest of 18-22-3w; No. 6-H Schroeder, northeast of the southwest of 18-22-3w; No. 7-H Schroeder, southeast of the northwest of the southwest of 18-22-3w; No. 2-L Schroeder, northwest of the southwest of the southwest of 18-22-3w; No. 3-L Schroeder, southeast of the southwest of the southwest of 18-22-3w; No. 5-L Schroeder, northwest corner of the southwest of 18-22-3w; No. 8-L Schroeder, northeast of the northwest of the southwest of 18-22-3w. Sinclair No. 2 Hartley, old well deepened, southwest corner of the northwest of 18-22-3w; No. 33 Hartley, southeast of the southwest of the northwest of 18-22-3w; No. 34 Hartley, southwest corner of the northwest of 18-22-3w; No. 35 Hartley, southeast of the southwest of the northwest of 18-22-3w; No. 36 Hartley, northwest of the southwest of the northwest of 18-22-3w; No. 37 Hartley, northwest corner of 18-22-3w; No. 26 Kisner, (West) northeast of the northwest of the northwest of 19-22-3w.

Garvin County—The Texas Company No. 12 Deryden, southeast corner of the southwest of the northeast of 17-1n-3w.

Grady County—J. B. Nichols Oil Company No. 2 Deryden, northwest corner of the southwest of the southeast of 35-5n-8w.

Grant County—Marland Oil Company No. 1 School land, southwest corner of the northwest of 36-26-3w.

Hughes County—Mid Continent Petroleum Corporation No. 9 Alexander, old well deepened, southwest corner of the northwest of the northwest of 3-9-9. Fuhrman and Newman No. 1 Buck, old well deepened, northwest of the southwest of the southwest of 4-9-11. E. R. Black No. 1 Garnell, northeast of the northwest of the southeast of 21-8-10. Amerada Petroleum Corporation No. 4 Harjo, northwest of the southeast of the northwest of 5-7-8; No. 5 Harjo, center of the northeast of the northwest of 5-7-8. Gilcrease Oil Company No. 1 Ferguson, northeast of the northwest of the southwest of 5-7-8.

Kay County—Comar Oil Company No. 2 S. Orr, southwest corner of the northeast of 5-28-1w. Marland Oil Company No. 2 Robinson, center of the northwest of the southeast of 17-27-1w; No. 1 Cole, northeast corner of the northwest of 31-27-1w.

Lincoln County—Gypsy Oil Company No. 10 Caves, southeast of the northwest of the southeast of 35-15-5.

Muskogee County—Papoose Oil Company No. 1 C. Smith, southwest corner of the northwest of 14-15-15.

Noble County—Skelly Oil Company and A. D. Krow No. 1 Tillman, southwest corner of the northwest of 13-22-2e.

Okfuskee County — Barnsdall Oil Company No. 2 Morgan, southwest corner of the southeast of 3-12-11; No. 1 Randall, northeast cor of the northwest of the northeast of 10-12-11; No. 2 Randall, northwest corner of the northeast of 10-12-11. Independent Oil & Gas Company No. 2-A Hull, center of the southwest of the southeast of 15-12-11. Josey Oil Company No. 15 McCoy, center of the northwest of the southeast of the northwest of 33-12-11. Champlin Oil & Refining Company No. 6 Grayson, center of the northeast of the southeast of the northwest of 22-11-11. Riverland Oil Company No. 1 Holmes, northeast corner of the northwest of the northwest of 30-11-11.

Okmulgee County—C. F. Noble No. 1 J. R. Adams, northwest corner of the southeast of 3-15-11. Sheridan Oil Company No. 4 Fife, center of the south line of the southeast of the northeast of 4-15-11. Wigton and Long No. 1-A Chittem, northwest corner of the southeast of the southeast of 29-13-11. W. B. Pine No. 1 J. Sells, northwest corner of 10-15-14. The Texas Company No. 11 S. Garnett, southeast of the northwest of the northeast of 21-15-14. J. L. Selby No. 1-A I. Osborn, center of the south line of the northeast of the southeast of 21-15-14. J. W. McCulloch No. 9 S. L. Berryhill, northwest of the southeast of the northeast of 19-14-13. J. Willmott et al No. 3 S. Rentie, southwest of the southeast of the southeast of 11-14-14. M. P. Evans et al No. 1, L.

Hardgraves, southeast corner of the northwest of 20-13-13. E. J. Lambert No. 5 Freeman, northwest of the northeast of the northwest of 9-13-15. Helena Oil Company No. 4 B. Lovett, center of the north line of the southwest of the northwest of 16-13-15. Magnolia Petroleum Company No. 9 G. Jackson, twin, southwest of the northwest of the northeast of 1-11-13. B. Morgan No. 3 B. Canard, center of the south line of the southeast of the northeast of 13-11-13.

Osage County—A. G. Oliphant No. 1, northeast corner of 32-29-10. A. D. Simon No. 6 southwest corner of the northeast of the northeast of the northeast of 36-29-11 Duffield & Howard No. 1, northwest corner of 34-28-11. Lewis Oil Company No. 3, northeast of the northwest of the southeast of 21-26-6; No. 4, northwest of the northeast of the southeast of 21-26-6. Mid-Kansas Oil & Gas Company No. 1, northwest cor of 22-26-6; No. 2, southwest of the northwest of the northwest of 22-26-6; No. 3, northwest of the southwest of the northwes of 22-26-6; No. 4, southwest of the northwest of 22-26-6. Tidal Osage Oil Company No. 5, northwest of the southeast of the southwest of 24-24-8. Barnsdall Oil Company No. 6, southwest of the northwest of 11-24-11. Mid-Kansas No. 1, southwest corner of 36-22-8. Kewanee Oil & Gas Company No. 12, southeast of the northeast of the northeast of 5-22-11. Moore et al No. 7, southeast of the southwest of the southwest of 11-21-9. Mid-Kansas No. 1, northeast of the southeast of 10-21-10. Swoverland et al No. 3, northwest of the southwest of the southwest of 19-21-10. Kewanee Oil & Gas No. 5, cener of the east line of the west half of the east half of the southwest of 17-21-12; No. 9, southwest corner of 19-21-12. Commercial Drilling Company No. 1, northwest corner of the southwest of 23-21-12. Saboy Oil Company No. 8, northeast of the southeast of the southwest of 22-20-12. Westland Oil Company No. 2-A, northwest of the northeast of the southeast of 29-20-12. Winona Oil Company No. 5, southwest of the southeast of the northeast of 29-20-12.

Pawnee County—Selby Oil & Gas Company No. 1 Dunn, old well deepened, northwest corner of the northeast of the southeast of 10-20-8.

Payne County—Deep Rock Oil & Gas Company No. 1 Ostrander, southwest corner of the northwest of 23-18-3. Shaffer Oil & Refining Company No. 5 Givens, northwest corner of the southwest of 23-18-3. New England Oil & Refining Company No. 2 Broyles, northwest of the northeast of the northwest of 26-18-4. Home Gas Company No. 1 Kirk, northeast corner of the northwest of 6-17-4.

Seminole County—Tidal Osage Oil Company No. 2 Pahardy, southeast of the northeast of the southwest of 24-9-6. Empire Gas & Fuel Company No. 1 Noble, northwest corner of the southeast of 25-9-6. Homaokla Oil Company No. 4 Carolina, northeast corner of the southeast of the northeast of 6-7-8. Magnolia Petroleum Company No. 7 Harjo, northeast of the southwest of the northwest of 5-7-8; No. 8 Harjo, southeast of the northwest of the northwest of 5-7-8; No. 9 Harjo, center of the northwest of the northwest of 5-7-8.

Sequoyah County—Citizens Gas Company No. 1 Mayfield, southeast corner of the northeast of 15-11-26.

Stephens County—Malernee and Dunlap No. 8 Brittian, center of the east line of the northwest of the southwest of 20-1s-8w;—Correction. Merchant and Fain No. 1 Jameson, northeast corner of the northwest of 36-1s-8w.

Tulsa County—Regal Oil Company No. 7 Wicey, northwest corner of the southwest of the southeast of the southeast of 36-19-11.

KANSAS

Butler County—Dutton et al No. 1 Waldorf, southwest of the northeast of the southwest of 33-26-6. Abel et al No. 2 Bitler, northeast corner of the southeast of the northeast of 30-26-8. Cowpunchers Oil Company No. 3 Drum Bitler, center of the northeast of the southeast of 30-26-8. Sincliar Oil & Gas Company No. 4 Barnhill, northeast corner of the southeast of 22-27-7. Amerada Petroleum Corporation No. 2 Truesdale, southwest corner of the southeast of the southwest of 27-27-7. Dixie Oil Company No. 1 Bateman, northwest corner of the southeast of the southwest of 34-27-7. Federal Oil Company No. 6 Laughlin, center of the east

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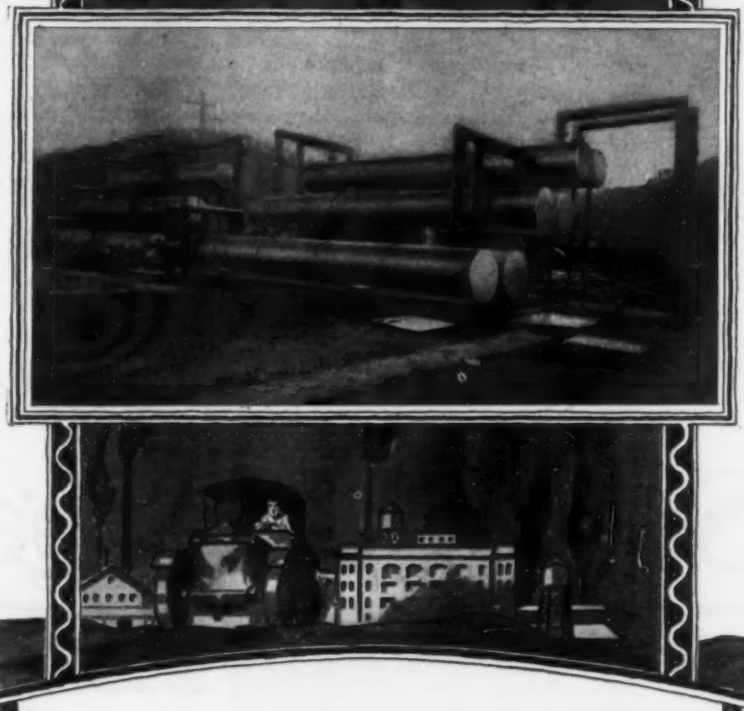

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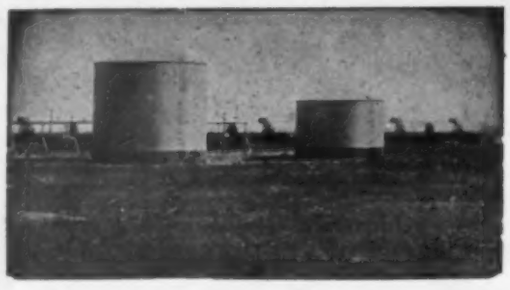

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half of the northeast of 33-27-7. Mid-Kansas Oil & Gas Company No. 1 Pettitt, northwest corner of 21-28-6.

Chase County— Vickers Petroleum Company No. 1 Nichols, southwest corner of the northwest of 16-20-7.

Coffey County—Connell et al No. 1 Pierson, northeast corner of the southeast of the northwest of 29-20-17. Derby et al No. 1 Schankie, southeast corner of the southwest of the northwest of 8-22-14.

Greenwood County—Sinclair Oil & Gas Company No. 39 Browning, northeast corner of the southwest of 20-22-10. Skelly Oil Company No. 2 "A" Prather, northwest corner of the southeast of 20-22-10. Empire Gas & Fuel Company No. 12 Kipfer, southeast corner of the northwest of the southeast of 11-22-11. Titus et al No. 1 Clark, southeast corner of the northwest of 28-22-11. Phillips Petroleum Company No. 6 Hilliard, southwest corner of the southeast of the southwest of 33-22-11. Shaffer & Howell No. 1 Young, southwest corner of the southeast of 11-22-12. Mission Oil Company No. 11 "B" Dales, northwest corner of the northeast of the northwest of 25-23-8. Manhattan Oil Corporation No. 23 Green, northeast corner of the southeast of the southeast of 10-23-9. Connell et al No. 1 Ridding, northwest corner of the northeast of the northeast of 10-23-11. Ritchey & Moore and White Eagle Oil & Refining Company No. 2 Lindamood, northwest corner of the southwest of the southeast of 19-24-11.

Lyon County—Ramsey et al No. 1 Frontiman, northeast corner of the southeast of 21-16-10.

Marion County—Stewart et al No. 1 Wiley, southwest corner of the southeast of 33-20-5.

Morris County—Derby Oil Company No. 1 Rogers, southeast corner of the southwest of the southeast of 18-16-5.

LOUISIANA

Bossier Parish—D. O. King & O. A. Morrow's C. N. Jones 1, 23-18n-11w, 165 ft W and 190 ft N of SE corner NE¼ of NE¼.

Calcasieu Parish—Gulf Ref. Co. of La.'s Gardner-Noble-Gray 66, 33-10s-12w, approximately 166 ft S and 50 ft E of NW corner NE¼ of SE¼; Star-Vincent 39, 34-10s-12w, approximately 1025 ft N and 568 ft W of SE corner of SW¼. Standard Oil Co. of La.'s Industrial Lbr. Co. 2, 30-9s-12w, 1033 ft E and 194 ft S of NW corner of NE¼.

Claiborne Parish — Triangle Drilling Co.'s Holleyfield 1, 32-23n-5w, 330 ft S and 330 ft E of NW corner E½ of SE¼.

De Soto Parish—J. P. Evans' Sutherlin 1, 20-12n-14w, 591 ft E and 146 ft S of NW corner of section. J. C. Walton's Chaffraix 1, 25-12n-11w, 181 ft N and 290 ft W of SE corner of SW¼; Harp 2, 36-12n-11w, 149 ft N and 290 ft E of SW corner SE¼ of NW¼.

La Salle Parish—O. W. Clark's K. S. Russell 1, 25-10n-1e, 200 ft S and 400 ft W of NE corner NW¼ of NW¼. A. E. Hudson's Urania Lbr. Co. 2, 7-10n-2e, 100 ft N and 100 ft W of SE corner NE¼ of SE¼; Urania Lbr. Co. 3, 7-10n-2e, 150 ft S and 150 ft E of NW corner NE¼ of SE¼; Urania Lbr. Co. 4, 7-10n-2e, 165 ft S and 450 ft E of NW corner NE¼ of SE¼. Jones & Dobbs' Norrid 1, 25-10n-1e, 244 ft S and 120 ft W of NE corner NW¼ of NW¼. Keen & Wolf Oil Co.'s Hardtner 3, 19-10n-2e, 200 ft N and 200 ft W of SE corner NE¼ of NW¼. Cleve Love et al's O. H. Bennett 2, 25-10n-1e, 100 ft N and 100 ft E of SW corner NE¼ of SW¼. Louisiana Oil Ref. Corp.'s Tremont Lbr. Co. A-4, 28-10n-2e, 150 ft N and 150 ft E of SW corner NE¼ of NE¼; Tremont Lbr. Co. B-31, 25-10n-1e, 150 ft S and 150 ft W of NE corner SE¼ of NW¼. McWilliams' et al's J. S. Winberry 1, 18-10n-2e, 150 ft S and 150 ft W of NE corner W½ of NE¼ of NW¼. Natural Gas & Fuel Corp.'s T. Russell B-1, 26-10n-1e, 150 ft N and 150 ft W of SE corner of section; F. Tullos 2, 26-10n-1e, 810 ft S and 850 ft W of NE corner NW¼ of SE¼; H. Tullos 6, 26-10n-1e, 130 ft N and 700 ft W of SE corner SW¼ of NE¼; H. Tullos 7, 26-10n-1e, 470 ft N and 520 ft W of SE corner SW¼ of NE¼. J. I. Roberts' Russell 3, 25-10n-1e, 660 ft S and 100 ft E of center of section. Geo. W. Wetherbee A. S. Norrid 2, 25-10n-1e, 527.9 ft N and 100 ft W of SE corner NW¼ of NW¼.

Natchitoches Parish—J. F. Palmer's Eden-

bourne 1, 4-11n-6w, 2240 ft W and 1320 ft S of NE corner of section.

Ouachita Parish—Southern Carbon Co.'s Fee 48, 35-19n-4e, 1400 ft S and 640 ft W of NE corner of section.

St. Mary Parish—The Union Sulphur Co.'s Bonvillain 1, 35-14s-8e, 750 ft W and 50 ft S of NE corner of Irreg. section 35.

ARKANSAS

Columbia County—J. E. Crosbie's Jones 1, 36-15-20, NEc SW¼ SE¼.

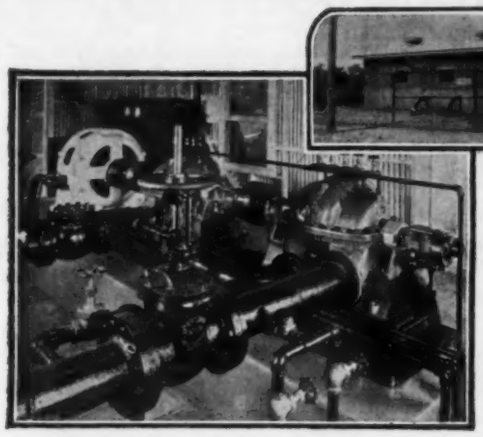
Nevada County—Humble O. & R. Co.'s Groves A-4, 1-14-21, 150 ft E and N of SWc NW¼ SW¼; Groves B-1, 1-14-21, 150 ft S and E of NWc SW¼ SW¼.

Union County—Broderick & Calvert's Murphy B-7, 8-16-15, 200 ft N and E of SWc of section. Constant Ref. Co.'s Burns 6, 31-17-15, SWc NW¼ NW¼. W. E. Harper Trust's Mathews 1, 34-16-16, 150 ft N and 475 ft W of SEc of section. Lion O. & R. Co.'s Flenniken 8, 10-16-15, 800 ft N and 300 ft E of center. Magnolia Pet. Co.'s Dumas 2, 9-17-16, center of west line SE¼ SE¼ NE¼; Dumas 3, 9-17-16. NWc SE¼ NE¼; Slaughter 2, 9-17-16, NEc NW¼ NE¼. Ohio Oil Co.'s H. G. Murphy 1, 21-17-16, 160 ft S and E of NWc NW¼ NE¼. Simms Oil Co.'s Dumas A-5, 9-17-16, NWc NE¼ SW¼. Southern Crude Oil Purch. Co.'s Slaughter 1, 3-17-16, SWc of section. Wingfield et al's Dumas A-4, 9-17-16, NWc E½ SW¼ NE¼; Slaughter 7, 9-17-16, NWc S½ NE¼ SE¼; Slaughter 8, 9-17-16, NEc NE¼ SE¼.

TEXAS

Archer County—Ramming & Saunders, Staley Bldg., Wichita Falls, L. F. Wilson 1, B 23, Amer Trib sur, 535 ft to W and 150 ft to S line. Gulf Production Co., Ft. Worth, M. W. Jackson 6, W. B. Aldridge sur, 500 ft S No. 2; B. R. Jeske 3, T. McCoy sur, 350 ft W No. 1; Kell-Kempner 1, S 6, WVFL sur, 150 ft to S and W lines. C. H. Verschoyle et al, Wichita Falls, J. A. Young 3, 2432 TE&L sur, 450 ft N No. 2. Roy I. Carter, Wichita Falls, J. H. Turbeville 5, B 61, JCSL sur, 150 ft to S and E lines. Trinity Townsite Co., Dallas, Megargel 4, 2433 TE&L sur, 50 ft to N and 165 ft to W line. Harris & Gose, Wichita Falls, J. Conner 1, A. D. Palmer sur, 150 ft to N and E lines. Richardson Oil Corp., Staley Bldg., Wichita Falls, E. J. Netherton 1, S 104, Amer. Trib. sur, 150 ft to S and E lines. Pandem Oil Corp., Wichita Falls, Fee 13, 2433 TE&L sur; J .A. Young 1, 2426 TE&L sur, 150 ft to N and W lines. Texas Co., Wichita Falls, B. R. Jeske 10, T. McCoy sur, 150 ft to W and 1494 ft to S line. Harry Hines, Perkins-Snyder Bldg., Wichita Falls, J. T. Richardson 1, J. L. Anderson sur, 150 ft to N and E lines. Texhoma Oil & Ref. Co., Wichita Falls, C. L. Abercrombie 2, SP Ry sur, 150 ft to E and 1104 ft to S line; S. E. Oldham 16, E. Hubbell sur, 300 ft S No. 13. W. J. Sheldon, Electra, Reuben & Parrish 18, B 128, Amer. Trib. sur, 150 ft to N and W lines; 14, B 78, Amer. Trib. sur, 150 ft to N and E lines; 17, B 79, 450 ft S No. 15; 19, B 50, 150 ft to E and 450 ft to S line. Prairie Oil & Gas Co., Ranger, G. M. Boren 6, R. D. Newman sur, 221 ft S No. 2. Atlantic Oil Prod. Co., Magnolia Bldg., Dallas, R. H. Rachuig 2, S 4, BBB&C Ry sur, 300 ft W No. 1. Magnolia Petroleum Co., Dallas, M. Rutty 4-B, J. O'Riley sur, 300 ft W No. 1. Tidal Oil Co., W. T. Waggoner Bldg., Fort Worth, C. A. Mangold 1, S 22, C. A. Mangold sur, 150 ft to N and W lines.

Brown County—Achison & Lancaster, Winchell, E. L. Dixon 1, M. Osborn sur, 300 ft to N and E lines. Barbour Oil Co., First Nat. Bank Bldg., Houston, J. M. Prater 4, W. B. Travis sur, 300 ft W No. 1. Mitcham & Logan, 510 W. Eighth St., Cisco, J. H. Browder 1, B 115, K. Holstein sur, 150 ft to S and E lines. C. M. Root, Eastland, M. J. Suttle 1, R. Mitchell sur, 150 ft to N and W lines. Pennok Oil Corp., Box 394, Breckenridge, G. M. Grooms 3-A, J. Ross sur, 150 ft to S and E lines. J. K. Hughes Dev. Co., Mexia, J. T. Arledge 3, N. B. Mitchell sur, 600 ft E No. 2. Texas Co., Cisco, B. F. Dunn 6, S 12, J. Delgado sur, 450 ft to N and E lines. W. T. McClure et al, Pioneer, J. H. Prater 1, W. L. Swain sur, 450 ft to N and 150 ft to W line. Schaffner-Wilson et al, Box 385, Cisco, W. A. Prater 9, S 149, W. Miller sur, 300 ft S No. 8. Western Oil Sales Corp., Box 385, Cisco, J. H. Browder 1, S 115, K. Holstein sur, 150 ft to S



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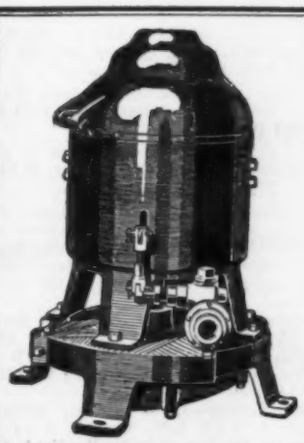

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and E lines. Geo. E. Fagg, Box 1046, Cisco, G. T. Butler 1, J. McGloin sur, 1683 ft to N and 1625 ft to W line. Godley Oil Co. & Cranfill & Reynolds, Henrietta, S. M. Parks 2, J. S. Thomas sur, 500 ft N No. 1. Texas Co., Cisco, B. F. Dunn 6, S 12, J. Delgado sur, 415 ft to E and 150 ft to S line. Humble Oil & Ref. Co., Cisco, B. F. Dunn 9, J. Delgado sur, 300 ft N No. 8. J. F. Williams, Rising Star, J. P. Newton 1, J W. Harris sur, 150 ft to N and W lines.

Bexar County— Associated Petroleum Co., Ft. Worth, A. S. St. John 3, A. J. Avant sur, 500 ft E No. 1. H. Pagenkoff, Maverick Bldg., San Antonio, M Covell 3, No. 4 sur, 900 ft SW No. 1.

Callahan County—McGee & Boone, Putnam, G. Brandon 1-A, S 3, Bayland Asy sur, J. K. Hughes Dev. Co., Mexia, W. L. Cutbirth 1, W. A. Smith sur, 660 ft to N and E lines. E. L. Smith Oil Co., Mexia, J. S. Hart 1, D&D Asy sur No. 6, 150 ft to N and E lines. H. H. Diamond, Holdenville, Okla., E. L. Terry 2-A, S 47, LAL sur 150 ft to W and 431 ft to S line. Dickey Oil Co. & Porter, Cisco, J. S. Hart 1, S 6, D&D Asy sur, 150 ft to N and E lines. Texas Co., Cisco, G. H. Clifford 26, 3151 TE&L sur, 750 ft E No. 22. Ashley & Roach, Moran, T. E. Hayden 8, S 115, Univ. Lands sur, 1050 ft to N and 250 ft to W line. Warren & Hayes Oil Corp., Box 576, Cisco, W. H. Ramsey 4, 2282 TE&L sur, 300 ft E No. 2; 5, 150 ft to N and W lines.

Coleman County — Monroe Production Co., Box 446, Coleman, J. W. Harris 1, H. Starnes sur, 1745 ft to W and 3060 ft to S line. Midvale Oil & Gas Co., Cisco, E. R. Sprawls 4, J. H. Johnson sur, 300 ft E No. 3. Canyon Oil & Gas Co. and Cromwell Oil & Gas Co., Cross Plains, J. W. Harris 23-A, J. Sanders sur, 160 ft S No. 1; 24-A, 1200 ft S No. 23. Tidal Oil Co., W. T. Waggoner Bldg., Fort Worth, W. C. Henderson 1, No. 80 J. Harris sur, 1650 ft to N and W lines. C. O. Moore et al, Cross Plains, E. Gray 2, M. Scott sur, 750 ft W No. 1. Burk-Greis Oil Co., and Gwinnup, Tulsa, J. C. Dibrell 5, J. W. Hicks sur, 943 ft to W and 250 ft to S line; 6, 943 ft to W and 250 ft to N line; 7, 250 ft to S and W lines; J. C. Dibrell 2, J. W. Hicks sur, 250 ft to S and E lines. De Arman Bros., Hardy-Peck Bldg., Corsicana, H. T. Garrett 1, W. D. Ripley sur, 150 ft to N and W lines. Western Oil Sales Corp., Box 385, Cisco, J. C. Dibrell 1, S 265, 200 ft to N and E lines.

Clay County—Western Oil Corp of Texas, Brown Bldg., Wichita Falls, M. Weiss 12, B 47, BCSL sur, 1505 ft to N and 750 ft to E line. Lone Star Gas Co., Dallas, Withers 5, B 45, PCSL sur, 200 ft to N and W lines; N. H. Martin 28, B 59, BCSL sur, 200 ft to W and 700 ft to S line. Winnipeg Oil Co., Wichita Falls, R. M. Waggoner 1, McKenzie sur, 150 ft to N and E lines.

Crane County—Logan, Gilliam, Connor, Croft & Rehn, F. & M. Bank Bldg., Ft. Worth, W. H. Penix 1, S 42, B 42, T&P Ry sur, NW cor.

Crockett County—Gulf Production Co., Fort Worth, G. L. Thompson 1, S 12, R. M. Collins sur, 1860 ft to W and 764 ft to S line.

Cherokee County — Humphreys-Colliton Co., Mason Bldg., Houston, B. L. Cusley 1, J. Culp sur, 200 ft to S and W lines.

Caldwell County—Hooser Oil Co., Thomas Bldg., Dallas, M. W. Eppright 4, G. Pace sur, 300 ft N No. 3.

Duval County—Maurer & Duggan, 1006 Elm St., Dallas, W. K. Hoffman 1, S 123, J. Poitevent sur, 2525 ft to NE and 878 ft to NW line. Cole Petroleum Co., Laredo, M. Arispe 20, S 19, B 8, 155 ft to N and E lines; 21, S 16, B 3, 660 ft to SW and 330 ft to SE line.

Eastland County—C. C. Mooreman, Ranger, L. G. Ross 1, McL. C.S.L. sur, 150 ft to W and 400 ft to S line. Magnolia Petroleum Co., Dallas, I. S. Ford 1-B, M. Finch sur, 150 ft to N and E lines; O. Harris 10, M. Finch sur, 700 ft to N and 200 ft to E line.

Fort Bend County—Rycade Oil Corp., Humble Bldg., Houston, B. Wisdom 6, H. N. Cleveland sur, 1250 ft to N and 500 ft to E line.

Guadalupe County—Payne & Bond, Magnolia Bldg., Dallas, H. Rosenbrock 1, V. Duran sur, 150 ft to N and W lines.

Galveston County—Sun Oil Co., Beaumont, J. W. Lockhart 8, M. Dunman sur, 117 ft W No. 6.

Harris County—Sun Oil Co., Beaumont, R. L. Blaffer 32, R. Dunman sur, west of No. 12. Maskell & Maskell, Humble, W. W. Foudren 19, J. Strange sur, south of No. 14. M. W. Johnson, Box 557, Humble, S. H. Roberts 1, J. B. Jones sur, 50 ft to W and 61 ft to S line. M. & B. Co., 1002 Bissonet Ave., Houston, J. Scorrego 4, 400 ft to S and E lines.

Hardin County—Minor Oil Co., Beaumont, Fee 77, S. Jackson sur, 80 ft E No. 40. Gilbert Co., Box 987, Beaumont, Fee 98, S. Jackson sur, 161 ft S No. 11. Sterling Oil Co. of Texas, Batson, C. Hooks 4, S 153, C. Choate sur, 44 ft to E and 125 ft to S line.

Hutchinson County—New Domain Oil & Gas Co., Box 367, Cisco, W. L. Kingsland 2, B Y, S 4, B&M sur, 330 ft to W and 310 ft to S line. Gibson Oil Corp., Massie Bldg., Amarillo, W. L. Kingsland 1, S 4, B Y, M&C sur, 330 ft to S and E lines; 5, 330 ft to N and W lines. Phillips Petroleum Co., Bartlesville, Okla., Whittenburg 2, S 12, B Y, H&TC Ry sur, 367 ft to E and 228 ft to N line; M. Huff 3, S 12, B Y, M&C sur, 330 ft to S and E lines. J. L. Smith, Smith Bldg., Amarillo, Smith-Capers 1, S 7, B Y, M&C sur, 330 ft to N and W lines. Skiatex Petroleum Co., Skiatook, Okla., W. L. Kingisand 3, S 6, B Y, M&C sur, 330 ft to N and E lines; 4, 330 ft to N and W lines.

Henderson County—Fred E. Haynes, Kirby Bldg., Dallas, L. A. Bound 3, H. Jeffrey sur, 150 ft to S and W lines.

Hill County—Phillips & Johnston, Whitney, Sanderson 1, F. Baldez sur, 150 ft to S and E lines.

Jim Hogg County—Magnolia Petroleum Co., Dallas, B. de la Garza 2, No. 291 sur, 300 ft NE No. 1. Murchison & Fain Oil Co., San Antonio, B. A. Yaeger 1, S 452, 1320 ft to S and E lines.

Jefferson County—Baker Oil Co. Inc., Chronicle Bldg., Houston, Trembly 15, J. A. Veatch sur, 78 ft to NW and 75 ft to SW line.

Liberty County—Gulf Production Co., Houston, Phoenix 5, J. Devore sur, 133 ft to N and 387 ft to E line. Republic Production Co., Houston, Dolbear 123, J. Devore sur, 3869 ft to N and 2102 ft to E line; 124, 2160 ft to N and 2462 ft to E line.

Milam County—W. A. Jones, Minerva, Phillips 4, T. J. Chambers sur, 360 ft E No. 3. Minerva Petroleum Co., Minerva, B. Watson 16, T. J. Chambers sur, 160 ft to N and 151 ft to W line. Triangle Oil Co., Rockdale, M. T. Coulter 2, T. S. Arnett sur, 151 ft to N and 160 ft to W line.

Montague County—Texhoma Oil & Ref. Co., Wichita Falls, J. W. Rowland 6-A, J. Chambliss sur, 150 ft to N and 920 ft to E line. Texas Co., Wichita Falls, J. Howard 1, J. Chambliss sur, 200 ft to S and W lines.

Medina County — Cecil Switzer, Box 267, Hondo, M. J. Zerr 1, No. 459 J. J. Cassanova sur, west central. Ina Oil Co., San Antonio, V. Wilson 2, B 99, No. 251 sur, 82 ft to N and 200 ft to W line. Stover & May, Bedell Bldg., San Antonio, E. Bendele 1, No. 66 sur, 900 ft to E and 150 ft to S line.

McCullough County—M. L. Howell, Lohn, Roberts-Moore 6, J. Ohering sur, 300 ft W and 50 ft N No. 2.

Marion County — Trimount Petroleum Co., Slattery Bldg., Shreveport, La., Mebane-Stiles 6, N. Gupton sur, 500 ft N and 500 ft W No. 3.

Navarro County—Nacatoche Oil Co., Wortham, E. R. Quinby 1, E. R. Quinby sur, 700 ft to N and 150 ft to E line.

Panola County — Magnolia Petroleum Co., Dallas, M. W. Wells 1, J. Womack sur, 1700 ft to W and 200 ft to S line.

Palo Pinto County—A. T. Culbertson et al, North Texas Bank, Dallas, Crossland 1, S 47, T&P Ry sur, 200 ft to N and E lines.

Refugio County—T. W. Gregory, Houston, F. B. Rooke 1, T. Mullen sur, 200 ft to center of E line; 2, 100 ft NW No. 1. Houston-Gulf Gas Co., Houston, W. Heard 1, Refugio sur, 200 ft to N and 500 ft to W line; 2, 500 ft to S and W lines.

Reagan County—Big Lake Oil Co., Best, University 72, S 12, B 2, 735 ft SE No. 60; 71, S 11, B 2, 800 ft N No. 10; 70, S 1, B 2, 890 ft SE No. 9; 69, 1320 ft S No. 56; 68, 1418 ft SE No. 54.

Shackelford County—J. C. Brooks, Moran, C. B. Snyder 1, S 35, LAL sur, 150 ft to N and 250 ft to W line. Dallas-Bradford Oil Co., Albany, J. H. Romas 3, S 66, LAL sur, 300 ft to N and E lines. E. B. Cochran, Wichita Falls, S. S. Diller 2, S 42, LAL sur, 150 ft to N and 300 ft to E line.

Stephens County—B. F. Kleinfelder, Box 1132, Breckenridge, W. J. Conner 4, S 24, LAL sur, 1122 ft to N and 330 ft to W line. Mid-Kansas Oil & Gas Co., Tulsa, S. H. Hill 10, 1123 TE&L sur, 1150 ft S No. 1. W. H. Myers & Co., Marston Bldg., Ranger, R. L. Glasscock 1, S 80, B 4, T&P Ry sur. Texas Co., Cisco, E. S. Curry 2, 2030 TE&L sur, 400 ft to S and 410 ft to E line.

Throckmorton County—Gulf Production Co., Ft. Worth, R. H. Brown 1, 921 TE&L sur, 150 ft to N and E lines.

Tom Green County—World Oil Co., World Bldg., Ft. Worth, M. B. Pulliam 1, S 18, B 4, H&TC Ry sur, 150 ft to N and E line.

Upton County—Gulf Production Co., Fort Worth, J. T. McElroy 1, S 203, B F, CCSD & RGNG Ry sur, 300 ft to S and E lines.

Wichita County — Petroleum Prod. Co., Wichita Falls, L. P. Douglas 1, HT&B Ry sur, 150 ft to S and 480 ft to E line; 2, 312 ft SE No. 1; 3, 300 ft NE No. 1. H. C. Dickey, Cotton Exchange Bldg., Ft. Worth, F. P. Warren 7, J M. Hensley sur, 150 ft to N and E lines. M. J. Sullivan, Ridge Arcade Bldg., Kansas City, Mo., M. E. Carey 1, B 10, Thornberry sur, 150 ft to N and E lines. P. J. White et al, Harvey-Snyder Bldg., Wichita Falls, S. Mitchell 2-A P. Castleman sur, 150 ft W No. 2. Skelly Oil Co., Tulsa, Okla., B. Ramming 4, HT&B Ry sur, 150 ft to W and 450 ft to S line. W. A. Plummer, 2001 Lucille St., Wichita Falls, W. H. Chilson 11, B 7, DCSL sur, 300 ft S No. 4. Natural Petroleum & Ref. Co., Wichita Falls, E. F. Gaston 3, J. Rector sur, 300 ft E No. 2. J. H. S. Bonner et al, Wichita Falls, J. J. Perkins 5, P. Corrigan sur, 225 ft N No. 4. A. A. de Camp, Burkburnett, M. Evans 2, Taliaferro sur, 500 ft W No. 1. Camp Oil & Gas Co., Harvey-Snyder Bldg., Wichita Falls, L. P. Douglas 13, S 11, HT&B Ry sur, 450 ft to W and 1350 ft to S line. Den-Wichi-Oil Co., Abilene, Kemp & Kempner 6, WVFL sur, 250 ft S No. 1; 7, 250 ft SE No. 2. Rakin & Parsons, Staley Bldg., Wichita Falls, P. Peyton 1, MEP&P sur, 150 ft to S and E lines. Kemrow Prod. Co., Box 577, Electra, Burnett-Lloyd 5-A, S 6, HT&B Ry sur, 560 ft to W and 465 ft to S line. Ryan Consolidated Petroleum Corp., Bartlesville, Okla., G. Nanec 62, S. O. Fowler sur, 340 ft S No. 42. Humble Oil & Ref. Co., Wichita Falls, T. & J. Waggoner 2, S 8, GH&H sur, 150 ft to E and 200 ft to S line. Geo. L. Pace, Staley Bldg., Wichita Falls, T. F. Mitchell 5, B 7, P. Castleman sur, 350 ft S No. 3. Gulf Production Co., Fort Worth, G. Jennings 15, S 11, HT&B Ry sur, SE No. 8; J. L. Waggoner 2, M. A. Willis sur, 300 ft E No. 1; Forbes-Burnett 19, S 7, HT&B Ry sur.

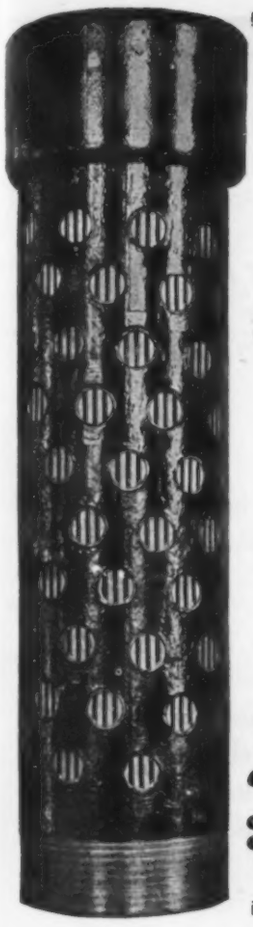
Wilbarger County — Landreth Production Corp., Vernon, W. T. Waggoner 3, S 47, B 4, H&TC Ry sur, 352 ft E No. 2; W. T. Waggoner 1, S 42, H&TC Ry sur, 395 ft to E and 185 ft to S line. F. A. Beatty, Vernon, W. T. Waggoner 2, S 36, H&TC Ry sur, 150 ft to S and E lines. Gardner & Whitehead, Harvey-Snyder Bldg., Wichita Falls, F. J. Milner 1, S 31, B 9, H&TC Ry sur, 150 ft to S and W lines. Humble Oil & Ref Co., Wichita Falls, W. T. Waggoner 6, S 46, H&TC Ry sur.

Wheeler County—Gibson Oil Corp., Harvey-Snyder Bldg., Massie Bldg., Amarillo, E. J. Phillips 3, S 41, B 24, H&GN Ry sur, 1226 ft to E and 1000 ft to S line.

Webb County—Henne-Winch, Laredo, A. de la Garza 1, No. 336 sur, 150 ft to W and 810 ft to S line. Magnolia Petroleum Co., Dallas, Ochoa 20, Lot 35, Walnut Sub. 150 ft to S and W lines.

Wharton County—J. W. Rich, Banker's Mortgage Bldg., Houston, M. Sorrel 1, S. F. Austin sur, south central; J. P. Anderson 2, A. Kuykendall sur, 840 ft to center of NW line.

Young County—Roy I. Carter, Wichita Falls, S. M. Benson 5, 1450 TE&L sur, 300 ft S No. 4; 6, 300 ft E No. 4. W. R. Cooper, Box 485, Olney, E. Farron 1, 1369 TE&L sur, 150 ft to E and 450 ft to S line. Atlantic Oil Prod. Co., Magnolia Bldg., Dallas, R. H. Rachuig 4, S 4, BBB&C Ry sur, 300 ft NW No. 1. Bridwell & Heydrick, Wichita Falls, W. A. Farmer 5, S 6, H. Anderson sur, 25 ft E No. 4. Booth Oil Co., Olney, Wm. Graham 2, 193 TE&L sur, 300 ft E No. 1.



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FISH TAIL DRILL BITS

Fish tail drill bits are necessary in the production of oil. The necessary kind of bits has become a factor.

In the manufacture of drill bits it has become necessary for them to be made interchangeable with tool joint connections. That can only be done by special machines. A thread milling machine is the only known machine that will cut an accurate thread that can be guaranteed as interchangeable. This machine will cut the same thread day in and day out without any variations.

All drill bits, drill collars and tool joints manufactured by us are cut on a Thread Milling Machine, scientifically heat treated throughout and made of fool-proof water tempered steel. Demand this method if you require accuracy of threads and every bit to be the same.

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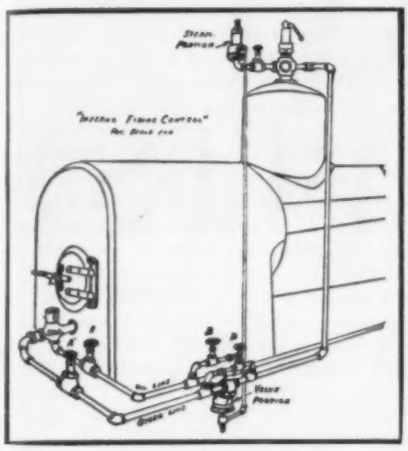


Inferno Firing Control

Firing Control Maintains Steady Steam Pressure

A firing control for use on boilers at drilling wells has recently been perfected by The Inferno Company, Shreveport, Louisiana, and the device is finding a ready sale in the fields, according to its manufacturers.

The "Inferno Firing Control" was designed for use on cable tool rigs where two men constitute a crew, the driller and tool dresser, but its use is spreading to rotary rigs as well.

It is claimed that this control will not let the steam pressure vary over two and one-half pounds when firing with either oil or gas. When the control is used with oil, the main fire in the boiler is adjusted by the valves AA¹ (see illustration) sufficient to hold the desired steam pressure under full load one time. When the steam pressure goes two and one-half pounds above the desired pressure, release the adjusting screw on top of the Steam Portion until the fire is cut out. Then open the valves BB¹ sufficient to make a small pilot light. This is done only once at the start. When the steam pressure in the boiler falls two and one-half pounds below the desired pressure the Steam Portion releases, allowing the Valve Portion to open permitting the full amount of steam and oil to get to the burner. The full fire is resumed thus checking a decline in steam pressure. After the first set of the valves the firing is done automatically, never permitting the boiler to pop off, and maintaining a constant pressure of steam within two and one-half pounds of any desired amount.

When firing with gas, the Inferno Firing Control is connected as illustrated for firing with oil except that only one side of the Valve Portion is used. The gas is run through either side or both sides if the pressure is very low. When the fire is cut out, the by-pass valve around the valve portion of the control is opened sufficient for a pilot light. When the steam pressure falls as when firing with oil, the main fire comes back on, checking a further decline in pressure.

Connections in the valve portion of the control are one inch which permits one control to fire as many boilers as one inch pipe will supply steam and oil or gas.

Additional information may be secured from the company upon inquiry.

Short Length of Type E Swab Gives It Advantage

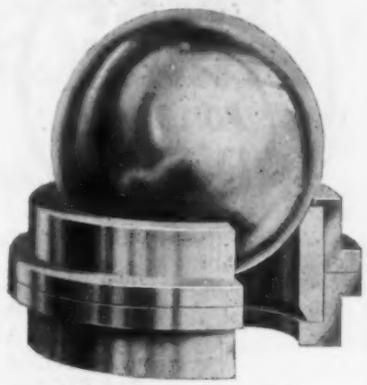
A new model of the Guiberson Swab has been announced by The Guiberson Corporation, after thorough field tests in the Garber and Tonkawa districts. The new design is called "Type E," and is intended primarily for production work.

The swab works on the same principle as the old Guiberson swabs. Wire supported composition cups are used to permit ready yielding in passing through rough or indented casing. An extra large mandrel and check valve provide ample passage way for the fluid when running in. Fluid also readily bypasses the cups, so that the swab goes down the hole easily and rapidly.

A feature of the new swab according to its manufacturers, is its simplicity of operation. In changing cups the check valve at the bottom is unscrewed after which the two cup assemblies and the loose sleeve which separates them, readily slip off the mandrel, enabling new cups to be slipped into position.

The short length of the swab give it an advantage in going around crook in the hole.

The Guiberson Corporation, Dallas, Texas, will supply further details on request.



Larkin Ball and Seat Valve

Larkin Ball and Seat Valve Has Renewable Insert

The Larkin ball and seat valve, a new piece of producing equipment which is said to embody an unusually durable split type retainer and a renewable insert as features, has been put on the market by the Specialty Sales Company, 1101 Spring Arcade Building, Los Angeles, California.

Metal used in making retainers of the combination is of a ductile nature, brass, allowing conformity to irregularities of fittings in which they are used.

Abrasive action of sand on the valve has been reduced to a minimum by steps employed in manufacturing the Jimmie Larkin valve, according to the manufacturers. In the first place, the inserts are made of rust resisting alloy steel guaranteed not to become pitted or corroded. Because the design of the insert largely relieves the strain on the seat, the manufacturers claim they are able to harden them almost to a degree of brittleness.

More information can be obtained by communicating with the company, direct.

Platform for Lift Trucks Has Adaptable Features

Increased popularity of the lift truck system for handling materials on platforms has brought forth many improvements and adaptations in this kind of equipment. One of the most recent improvements is announced by The Stuebing-Cowan Company, Cincinnati, Ohio.

This is a platform originated by W. R. Stuebing, of Cincinnati. The principal feature of the platform is the method of clamping the wooden top between the jaws of the two steel angle rails, which is said to give a vise-like gripping action that results in maximum rigidity and strength.

This construction also makes the platform flexible to changing requirements, enabling conversion into bin

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types for handling small parts, stake types for long material, rack and table types, or the use of crane hooks where the load is to be handled overhead during certain phases of production.

Capacity of these platforms is given as between 10,000 and 20,000 pounds.

Further information will be supplied by the company on request.

Ft. Worth, Tex.—The Wagner Supply Company which has headquarters at Fort Worth, has established a warehouse at Panhandle and a store at Borger, located in the heart of the Carson-Hutchinson County field, to serve its customers in the Texas Panhandle. A complete stock of oil field equipment and specialties will be carried at the two points. J. T. Elliott has been placed in charge of the Panhandle branches, with Robert Dunn as assistant.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912,

Of The OIL WEEKLY, published weekly at Houston, Texas for April 1st, 1926.

State of Texas
County of Harris ss.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared A. L. Burns, who, having been duly sworn according to law, deposes and says that he is the Manager of The OIL WEEKLY and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, R. L. Dudley, Houston, Texas; Editor, S. W. Robinson, Houston, Texas; Associate Editor, J. Kent Ridley, Houston, Texas; Manager, A. L. Burns, Houston, Texas.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

James Anderson, Houston, Texas. D. L. Blaffer, Houston, Texas. Mrs. S. C. Blaffer, Houston, Texas. A. L. Burns, Houston, Texas, J. F. Carter, Tulsa, Okla. Dr. N. L. Dudley, Goose Creek, Texas. R. L. Dudley, Houston, Texas. W. S. Farish, Houston, Texas. Dr. J. L. Gross, Houston, Texas. H. R. Hughes Estate, Houston, Texas. Chas. H. Lane, Houston, Texas. W. B. Larkin, Wichita Falls, Texas. J. H. McEvoy, Houston, Texas. J. H. McEvoy, Jr., Houston, Texas. H. A. Miles, Dallas, Texas. Wallace E. Pratt, Houston, Texas. J. Kent Ridley, Houston, Texas. Spencer W. Robinson, Houston, Texas. C. N. Scott, Houston, Texas. R. S. Sterling, Houston, Texas. John R. Suman, Houston, Texas. O. B. Waller, Chicago, Ill. E. E. Watts, Houston, Texas. C. F. Williams, Humble, Texas.

3. That the known bondholders, mortgagees, and security holders owning or holding 1 per cent or more of total amount of bonds, mortages, or other securities are: (If there are none, so state.) Maurice Hirsch, Houston, Texas. Jas. Anderson, Houston, Texas. H. C. Weiss, Houston, Texas. R. L. Blaffer, Houston, Texas. W. S. Farish, Houston, Texas. Chas. H. Lane, Houston, Texas. Jno. R. Suman, Houston, Texas. Mrs. Chas. H. Lane, Houston, Texas. Mrs. A. C. Schneider, Houston, Texas. R. S. Sterling, Houston, Texas.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is..... (This information is required from daily publications only.)

A. L. BURNS,
Manager.

Sworn to and subscribed before me this 31st day of March, 1926.

J. KENT RIDLEY,
(SEAL.) Notary.
(My commission expires June 30th, 1927.)

LETTERS OF Paul Peebles P.S.G.

mi deer cleopatry

cleo hunny I am ritin 2 yu from chicargo where I arrove a cupple of days ago & in whitch I hav bin 2 bussy 2 rite 2 yu enny sooner on account of it is a hole lot of unfinished bizness in this town & while it aint up 2 me 2 atend 2 all the unfinished bizness there is, still it is a lot of things for me 2 look around about.

On the mane thow it is kinder quiet in the citty, like I will tell yu about how I cum out last nite whitch is a fare example. I will start from the beginnin at supper time & tell yu all of it just like it happen so that yu will no how quiet I hav bin & also ennyway hunny that is the way I always am with yu—if I start out 2 tell yu about ennything I tell it all. I am startin off at nite on account of during the day I was bussy & it aint no use 2 be werryin yore pretty hed about bizness.

well like I sed well I cum back 2 the hotel where I am stayin at pretty erly 2 eat & went 2 supper with a cupple of fellers & seen a girl werkin in the resterant whitch was loansome but I cood not do nuthin for her then on account of it was three men with mi party & not nether 1 was willin 2 go on & leev me there. so we had 2 leev her & go 2 a show. well hunny I do not no if I ort 2 tell yu about that show or not & I am kinder glad yu was not there beause if yu had seen what I saw yu wood be ashamed 2 undress yoreself & sea the contrask. of corse me bein a geeologist I had a scientifick intrest in the formashuns whitch was exposed, & hunny I aint never saw sutch outcropins before in mi life like I seen last nite. I don't think this show will evver cum 2 goose creek so I gess yu will not git 2 sea it.

well then 2 git on with mi report of last nite, after the show was ovver I cum on back 2 the hotel & started 2 go 2 sleep like I always do early when I am away on trips, hunny, but after I was in bed I herd the fire waggins down in the streat under mi winder & when I looked out I thort it was the hole town burnin up on account of it was enuff red waggins there 2 put out the hole town, but all the matter was that a feller had set hisself afire & then jumped out of the 19 story winder, whitch was a pretty good jump. well that it is how quiet it is around hear.

but hunny what I cum up hear for reely was 2 here l. v. nicklases semmyanual monolog at the marketers assosashun. this time the principle order of bizness was the QDA whitch I wood tell yu what it is only I lissened 3 days about it & aint reel sure miself yet what it is, only I no it is anuther varryashun of why the inderpendents do not like the standard oil co, but it seems like it is sum kinder of a skeem that the standard oil co has got for sellin gasleen around hear whitch the independents dont like escept when when they can do it better. I hav got a good skeam I am goin 2 take up with mr. stewart of the standard whitch will be that his co go out of bizness rite away on account of it wood make harmony in the bizness in these parts, & also the sinclair & the texas & all the rest of the co's whitch has got as mutch as a milyun dollers, yu sea I figger it like this, if I had a milyun dollers I wood not want no oil bizness nor neether ennyother kind of bizness.

well the convenshun did stop talkin about the QDA long enuff 2 kinder git in behine mi ole frend bolene for sellin gasleen in milwaukee. sum of the other fellers whitch sells gasleen up their hav bin sellin hi test gasleen & got up a skeam with the state 2 go around & put on the pumps that the gasleen was 60 gravity, but they did not say nuthin about the end point. well I gess the reesen they did not say nuthin about it was they did not no nuthin about it, just the same as yu do not no nuthin about it, but that aint no difrents, only that bolene cum along with sum high gravity oil whitch he was kinder hones about & sed it was just gasleen, so then the fellers what puts the sines on the pumps 2 tell the gravity, they cum along & sed he was foolish for sayin it was not good as enny in town so they put a sine on the pumps 2 say it was hi-test & tole him they wood put him in jale if he tooken it off. well all the peeple thort he was givin them a bargin so they bort his stuff, so that is what made them all mad whitch was sellin agenst him so they sed he was a bootlegger & was unfare 2 the rest of the buntch. then it was anuther feller there name coryell whitch they also sed was a bootlegger, whitch was beginnin 2 kinder komplikate things because the chicargo bootleggers was gettin jellus of the publicty the out of town members was gettin, not noin the difrents between a gasleen bootlegger & the ordernary garden varyety. the last I herd they was tryin 2 git them 2 fellers 2 make speaches for the republikans hear whitch is havin a primary campane & is havin trubbel linin up the bootleggers on the lite wines & beer platform.

well hunny I gess I will not be back 2 huston for a week or 2 on account of I hav got 2 travel around up hear a little & look in2 the situashun a little on about how is the oil bizness cummin along. it has bin a little propergander goin around that there aint enuff oil 2 last verry long, so I need 2 reashure the boys a little so they will keep up there currege.

I will not tell yu about me cummin up on the trane & evry thing like that because I hav told yu bfore about them little rooms that they hav on tranes 2 sleap in & also whitch has a table 2 play cards on. well the trip was long enuff that I desided after I gotten hear that I had enuff munny 2 stay ovver for a few days. I cum 2 st. louis & it was rainin & snowin in chicargo, so so far as the wether is conserned it is normal & also mi temperature is stayin around normal in spite of that show I seen I was tellin yu about & still sum other things whitch I do not hav 2 tell yu on account of it aint noboddy up hear whitch noes yu 2 be tellin yu no lies on me.

mabe I will rite 2 yu agin next week & tell yu where I am bi then if I no.

yore lovin paul.

Harry Holden, who recently returned to the States after spending several years with an oil company in India, has joined the scouting staff of the Phillips Petroleum Company in Texas, and has been assigned the San Angelo district.

J. C. Hamer, production superintendent in the North Texas district for the Phillips Petroleum Company, with headquarters at Graham, has been transferred to Vernon to take charge of the producing properties recently acquired by Phillips from Landreth Production Corporation in the Noble-Dyson field, Wilbarger County, with about 4,500 barrels daily production. Alex J. O'Brien, general production manager, has charge of all of Phillips' properties in North and Central West Texas, with headquarters at Breckenridge.

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Pennsylvania Formation May Hold Utah and Colorado Future

(Continued from page 48)

parent conformity upon the preceding beds in the western localities, but the presence of an unconformity beneath it is clearly evident in its more easterly exposures, where it overlaps the older formations and finally rests on pre-Cambrian granite.

Jurassic Rocks

The rocks now assigned without question to the Jurassic have recently been divided into four formations, to which, in forthcoming reports by Gilluly and others, are applied in ascending order the names Carmel formation, Entrada sandstone, Curtis formation, and Summerville formation. The Carmel and Curtis contain marine faunas of Upper Jurassic age, and the Summerville is so closely related to the fossiliferous Curtis formation as to leave no room for doubt that it is also of Jurassic age.

The Carmel formation is of marine origin in central Utah; in eastern Utah it consists of interbedded non-fossiliferous red sandy shales and thin-bedded sandstones with local beds of limestone and gypsum. The formation in the eastern region contains erosional unconformities that may lie at different horizons in different places, and some of the strata are markedly crinkled, characteristics which aid in identifying the formation. The Carmel is apparently equivalent in age to the middle part of the La Plata sandstone of western Colorado and together with the overlying Entrada and Curtis formations was included in the "McElmo formation" as described by Lupton in his report on "Oil and gas near Green River, Utah," published in the Geological Survey's Bulletin 541, although all three are now known to be older than type "McElmo."

The Carmel is 300 feet thick near Bluff and 100 feet thick near the mouth of San Rafael River and grows gradually thinner eastward.

The Entrada is a cross-bedded sandstone that is 500 feet thick in central Utah and thins eastward. It is the sandstone near Moab that was regarded by Cross as "upper La Plata," and it has the same relative stratigraphic position as the upper part of the La Plata sandstone of western Colorado, which is 50 feet thick near Telluride. It contains manganese near Green River, and it forms many alcoves and natural bridges and is the monument-forming sandstone of Bluff, Utah.

The Curtis formation consists of marine sandstones and shales that lie unconfomably upon the Entrada sandstone. The Curtis is 50 feet thick near Green River and apparently thins out eastward.

The Summerville formation is typically developed in the San Rafael Swell. It consists of red shaly sandstones, sandy shale, and beds of limestone and gypsum, which seem to correspond to the older part of the "McElmo formation" as exposed in McElmo Canyon, Colo. The Summerville is closely related to the underlying fossiliferous Curtis formation and hence is regarded as of Jurassic age. It commonly contains concretions of chalcedony and yields manganese dioxide near Green River, Utah. The Summerville is 125 feet thick near the mouth of San Rafael River and less than 100 feet thick at the Colorado line; it either thins out completely or changes in lithologic character toward the southeast, so that it is not readily distinguishable from the "McElmo formation."

Cretaceous (?) Rocks

As here identified the Morrison formation consists of the Salt Wash sandstone member and overlying variegated sandy shales of characteristic Morrison type. In earlier reports on southeastern Utah and southwestern Colorado these beds have been included in the "McElmo formation."

The Salt Wash sandstone, which has previously been classed as a member of the "McElmo formation," lies unconformably upon the Summerville and consists of ledge-making, more or less conglomeratic sandstones, containing dinosaur bones, petrified wood, and fresh-water shells, which are interbedded with minor amounts of red and varicolored shale. The conspicuous lithologic character of the member facilitates its recognition, and dium ore that is mined in southwestern Colorado and eastern Utah. It is most prominent in Colorado, where it is 400 to 500 feet thick, and less so in Salt Valley, northwest of Moab, Utah, where it is 140 feet thick; it thus grows progressively thinner toward the west.

The variegated shales so characteristic of the Morrison formation were formerly classed as forming the upper part of the "McElmo formation." They are variable in thickness, though of uniform lithologic character throughout the area here described. They consist of minor local beds of channel conglomerate interbedded with variegated sandy shales such as those characteristic of the Morrison of the Front Range. In the easterly localities the variegated shales lie unconformably on the Salt Wash member, and their observed thickness ranges from 275 to 600 feet. In the westerly localities there seems to be no break between the Salt Wash member and the overlying variegated shales.

Beds of Undetermined Age

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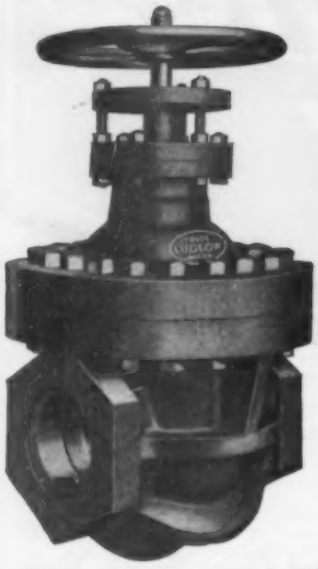

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ous conglomerate that is succeeded by highly colored shales and these in turn by coal-bearing sandstones and shales. At other places a basal conglomerate is succeeded directly by coal-bearing sandstone and shale. At still other places, especially in the westerly localities, there is no conglomerate but only sandstone, with or without coal-bearing beds. The colored shale division, at places more than 100 feet thick, consists of pink and greenish-blue sandy shales and is most prominent in the westerly localities in Utah, where the conglomerate and colored shales have been asisgned by Lupton and others to the "McElmo formation" and by some later students of the region to the Morrison formation. In Colorado, where the conglomerate is usually thick and the colored shales thin or absent, they have been described by Coffin as "pre-Dakota" and "post-McElmo." Lee and Boyer, on the other hand, believe that the conglomerate and overlying shales belong to the lower part of the Dakota formation as delimited by Cross.

Upper Cretaceous Rocks

In most places a sandstone lies between the colored beds, where these are present, or the carbonaceous beds, where coal occurs, and the overlying Mancos shale. This sandstone is the Dakota sandstone of some geologists and is the upper sandstone of the Dakota of those who include the colored beds and conglomerate beneath them in the Dakota formation.

The Mancos shale, which is of Upper Cretaceous age, is a dark shale of marine origin. In most of the area examined only a thin remnant of this shale remains, and little attention was given to it.

Correlations

The Cretaceous beds and those of possible Cretaceous age—that is, down to the base of the Salt Wash member of the Morrison formation—are readily recognizable, persistent, and reasonably regular in thickness. Also the beds of Upper Triassic age, the Chinle formation, and possibly the Shinarump conglomerate, and their equivalents in Colorado, the Dolores formation, are readily identified by their peculiar lithologic character and their fossils. The subdivisions of the beds between these two horizons are correlated from place to place with some doubt. These subdivisions are irregular in thickness and the sediments represent accumulations near the eastern margin of a basin which seems to have been only intermittently occupied by sea water. Within the area here considered they range in thickness from more than 2000 feet at the west to less than 200 feet at the east, in a distance of about 100 miles. This rapid diminution in thickness in beds chiefly of nonmarine character suggests the need of much more careful tracing of individual beds than has yet been done, before correlations of the subdivisions can be made with confidence. The relations described above seem reasonable but should be checked and verified. The Wingate sandstone and the Navajo sandstone are readily recognized in most places where they occur together. But in some places,

where only a small exposure is visible, it seems impossible to determine which sandstone is represented. Recognition of the still younger Jurassic beds is even more difficult without careful mapping to determine which beds thin out and which persist.

More precise correlation of the formations of Triassic and Carboniferous age is highly desirable, but such correlations can not be made without additional information. The petroliferous Pennsylvanian rocks may once have extended over the Uncompahgre Plateau and may have been removed by erosion, but their lithology and the character of their fauna suggest that they were deposited in an embayment southwest of the Uncompahgre Plateau, which had an intermittent connection with the Pennsylvanian sea of areas east of the Rockies.

Possibilities of Obtaining Oil

The presence of oil in Pennsylvanian beds below the salt and gypsum zone has been demonstrated by the Cane Creek well and has been suggested by the small quantities of oil and gas that were found in the Big Six wells, near Moab, and in the Crescent-Eagle well, on the northwest end of the Salt Valley anticline. Because of faulting near these wells and the concealment of the bedrock the precise significance of these wells is not determinable. In general, however, anticlines in southeastern Utah and southwestern Colorado that are underlain by the beds now productive at Cane Creek may yield oil and gas, and it is barely possible that higher sands which overlie these Pennsylvanian beds may have been saturated with oil by upward migration.

According to the work of the Geological Survey party in charge of James Gilluly, the beds that yield oil at Cane Creek may lie less than 3,000 feet below the surface near the crest of the San Rafael Swell, about four miles west of the Carter Oil Company's test well that was drilled on the Sinbad Plateau in T. 23 S., R. 12 E. Further exploration of the Swell therefore appears to be warranted. Similarly the possibility of obtaining oil from the McElmo dome in Montezuma County, Colo., does not appear to be excluded by the failure of the test well drilled on it in 1921 by the Midwest Refining Company. This well, which was started in the lower part of a sandstone in the Dolores formation that was identified as the Wingate sandstone, apparently entered the Hermosa formation at 2852 feet and below that depth penetrated numerous beds that yielded some oil and a considerable volume of gas, but it may not have reached the beds that are productive at Cane Creek.

The well of the Cinco Minas Company in Paradox Valley has encountered gas under heavy pressure in salt beds that were penetrated by it, and the well of the Gilmore Oil Company on the Dry Creek anticline, 10 miles southeast of the Cinco Minas well, may or may not have reached the top of the Pennsylvanian.

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mation (presumably in early Triassic time), and similar folding may have taken place still earlier, in late Carboniferous time. Minor earth movements recurred intermittently during the later part of the Mesozoic era and culminated in the great differential uplift and faulting which took place in post-Cretaceous time.

As a result of the combined effects of these deformations numerous prominent anticlinal folds, which trend northwest and expose Carboniferous and Triassic rocks, have been developed in southwestern Colorado, and other less conspicuous anticlines, which belong to the same system, have been developed in southeastern Utah between the Arizona boundary and the Denver & Rio Grande Western Railroad. The apparent southwestward decrease in the intensity of folding may, however, be more apparent than real, as post-Triassic rocks cover several of the Utah anticlines, and because of the unconformities beneath them these younger rocks are presumably less strongly folded than the underlying Carboniferous beds.

Flowage of the salt and gypsum beds, which lie above the productive beds of the Cane Creek dome, may have occurred on a considerable scale, and as a result the structure of the oil-bearing beds may not be accurately reflected by the attitude of the beds above the salt and gypsum zone. Because of the unconformities and possible flowage of salt beds it may therefore happen that the precise structure of the productive beds can be ascertained only after a considerable amount of exploratory drilling has been done.

Many of the anticlines in southwestern Colorado are described by Coffin in Bulletin 16 of the Colorado Geological Survey, and Prommel's maps of the Cane Creek and related domes and of the Salt Valley anticline in Utah are published in the Bulletin of the American Association of Petroleum Geologists for July-August, 1923. Woodruff, in a note on "Marsh gas along Grand River near Moab," in the United States Geological Survey's Bulletin 471, mentions the anticline 12 miles above Moab, near the crest of which methane gas escapes along the bed of Colorado River; and the McElmo anticline in Monezuma County, Colorado, is mapped and described by Coffin in Bulletin 24 of the Colorado Geological Survey.

The town of Moab is situated in a valley that was formed by the partial collapse of the crest of an anticline, described by Lupton, that extended from the northwestern part of T. 27 S., R. 23 E., into the area southeast of the town of Green River. The Lisbon Valley uplift, south of the La Sal Mountains, is bounded on its northeast side by a fault that passes a little north of the southwest corner of T. 30 S., R. 26 E., and close to the Big Indian Mill, in section 34, T. 29 S., R. 24 E. The displacement on the fault is about 3200 feet near the center of T. 30 S., R. 25 E., and it decreases north-

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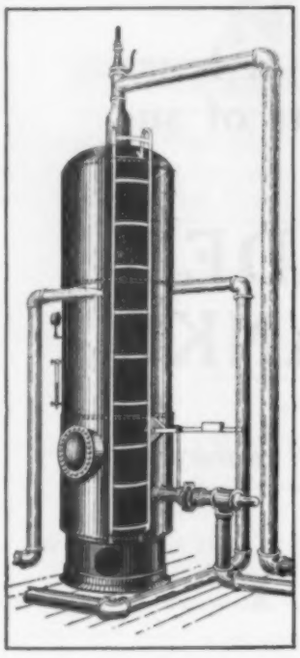

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westward, until the fault apparently merges into the Dry Valley anticline, a gentle fold that extends northwestward across the northern part of T. 29 S., R. 23 E. The Lisbon Valley fault divides into a multiple fracture in T. 31 S., R. 26 E., and dies out in the Disappointment syncline in Colorado. The Big Indian anticline, a small, narrow fold, parallels the Lisbon fault and lies northeast of it in T. 30 S., R. 25 E., and a small fold, which exposes the Entrada sandstones, occurs in the northeast corner of T. 28 S., R. 23 E. Other folds are known to cross the canyon of Colorado River between the mouth of Indian Creek and San Juan River, and still other anticlines will undoubtedly be found in the course of further exploration, both in southeastern Utah and southwestern Colorado.

Accessibility and Conditions of Operation

The region here considered is accessible from stations on the main line of the Denver & Rio Grande Western Railroad by a well-kept automobile road which leads southeastward from Thompson to Moab and by roads which lead westward from Dolores and other towns on the narrow-gauge branch of the Rio Grande Southern Railroad. A good road leads from Moab to Monticello and Bluff, and other roads connect these towns with the railroad at Dolores; also a secondary road leads from the Moab bridge up the gorge of the Colorado to Castleton and Cisco. Few trails are passable by automobile in the area west of the Moab-Bluff highway on account of the steep arroyos and deep sand, and much of that area will be traversable only with great difficulty.

In the region east of the Moab-Bluff road water can commonly be obtained without serious difficulty, but west of the road there is little permanent water except that of the Colorado River and of its deeply intrenched major tributaries.

Recent issues of trade journals report that an oil company interested in the development of the area is planning to lay a pipe line from the Cane Creek district to the Denver & Rio Grande Western Railroad near Thompson. Until oil or gas becomes available, fuel for drilling may be obtained from railroad points to the north and east or from local mines that operate on coal beds in the Dakota (?) formation at several localities east and northeast of Monticello. Wood may be obtained from the slopes of the La Sal or Blue mountains.

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An Irish sheriff had to serve a writ on a clever young widow and, on coming to her residence, said very politely: "Madam, I have an attachment for you."

"You have?" said she, blushing. "Then I may tell you that your affections are reciprocated."

It was the sheriff's turn to blush, and he explained: "You don't understand me, madam. You must proceed to court."

"Well, I know it's the year after leap year," she replied, "but I'd rather you did the courting yourself."

"Madam," he said sternly, "this is no time for fooling. The justice is waiting."

"The justice?" was the final answer. "Well, I suppose I must go, but it's all so sudden, and besides, I'd much prefer to have a preacher do it."

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'Tis a long, long road and dusty,
'Tis a long, long trail way back,
When you've lost the road you wanted,
And "gas" in the tank you lack,
Gas-Tank!
There's a long, long trail a'winging,
When the engine ex-pi-ates,
And you're ten miles from nowhere
How you curse that engine's traits,
Gas-tank!
How you shiver in the twilight
As you wait for a passing car,
And the girl you've brought is kicking
And she asks you, if it's far??
Gas-tank!
You trudge thru the weary midnight,
The girl is by your side,
You feel your backbone gnawing,
And your heart says, "homicide."
Gas-tank!
You see a light in the distance
A speck—ah, now—a flash,
'Tis the light of a distant village,
You dig down for your cash,
Gas-tank!
You reach the distant village,
You reach the red gas tank,
A sign hangs on the handle,
"No gas"—blank, blank, blank,
*-!n'!!

—New York American.

A ragged looking little Ford pulled up in front of a car of expensive design. The following words were on the spare tire of the Ford: "Don't laugh, Big Boy! Mine's all paid for."

Second Fiddle

According to William R. Boyd, Jr., assistant secretary of the American Petroleum Institute, preliminary arrangements are under way for the meeting of the A. P. I. in Tulsa some time during January, 1927.

Next to the 1927 convention of the National Association of Purchaing Agents, this meet of the A. P. I. will be the most important meeting of the year for Tulsa.—Mid-Continent Purchaser.

Ole Oleson, in pre-Volstead days, came into a Minnesota village one day, and inquired of the restaurant proprietor: "Got any squirrel whiskey?"

"No," said the restaurant man, "but I can slip you a little Old Crow."

"Aye don't vant to fly," said the Swede, "Aye just want to yump around a little."

Sticking to the Truth

James had just been engaged to assist the milkman.

"Now," said his master to him on the first morning, "do you see what I'm doing?"

"Yes, sir," replied James. "You're pouring water in the milk."

"No, I'm not, James," was the answer. "You're wrong. I'm pouring milk into the water. So if anyone asks you if I put water into the milk you be sure to tell 'em 'No.' Allus stick to the truth, James, and you'll get on in life. Cheatin' is bad enough, but lyin's awful!"—Magnolia Oil News.

Street Fakir—What's the trouble, Bill?

Second Ditto—Here I worked half a day paintin' up a sparrow into a redheaded Belgian canary, an' I'm blowed if the guy I sold it to didn't gimme a phony dollar bill.

Hell in the Meaning

The newly appointed pastor of a negro church faced a packed audience when he arose to deliver his sermon on this burning question: "Is there a Hell?"

"Bredern," he said, "de Lord made the world round like a ball."

"Amen!" agreed the congregation.

"And de Lord made two axles for de world to go round on, one axle at the north pole and one axle at the souf pole."

"And de Lord put a lot of oil and grease in de center of de world so as to keep the axles well greased and oiled."

"Amen!" said the congregation.

"And then a lot of sinners dig wells in Pennsylvania, Kentucky, Louisiana, Oklahoma, Texas and Mexico and Russia, and steal de Lord's oil and grease.

"And some day dey will have all of de Lord's oil and grease, and dem axles is gonna get hot. And den, dat will be hell, bredern, dat will be hell!"—Philadelphia Ledger.

Customer (on Sunday morning): "Give me change for a dime, please."

Druggist: "Sure, and I hope you enjoy the sermon."

LUDLUM
Tool Steel
Utica
THE MASTER HEAVY DUTY STEEL FOR PRESS TOOLS, COMPLICATED SHAPES, TAPS AND REAMERS.
WRITE FOR OUR INTERESTING BOOK ON TOOL STEELS.
LUDLUM STEEL COMPANY
WATERVLIET - N.Y. - U.S.A.
WE HAVE A SPECIAL TOOL STEEL FOR EVERY SPECIFIC PURPOSE.

BUYERS' GUIDE

A classified directory of all products used in the production of oil together with names of recognized supply dealers and manufacturers from whom they may be purchased. The concerns appearing in the Guide are regular advertisers in The OIL WEEKLY and further information including addresses can be secured by referring to their advertisements. Alphabetical Advertisers Index on page 20.

AIR COMPRESSORS
Continental Supply Company
Gardner Governor Co.
Hope Engineering & Supply Co.
Southern Engine & Pump Co.
Waukesha Motor Co.

AIR LIFT PUMPING EQUIPMENT
Gardner Governor Co.
Sullivan Machinery Co.

ALLOY STEEL CASTINGS
Sivyer Steel Casting Co.

ASBESTOS AND MAGNESIA
Johns-Manville, Inc.

ATTORNEYS
Hirsch & Hannay
Vinson, Elkins & Wood

BABBITTS
Eagle Picher Lead Company

BALLS AND SEATS
Norris Brothers
Northrup Equipment Company
The Charles N. Hough Mfg. Co.

BAND WHEELS
Emsco Steel Products Co.
International Derrick & Equipment Co.
Lee C. Moore & Co., Inc.
Parkersburg Rig & Reel Co.

BELL NIPPLES
The Cunningham Co.

BELTING
Bridgeport Machine Co.
Continental Supply Company
Frick-Reid Supply Co.
International Supply Co.
Oil Well Supply Co.
Republic Supply Co.

BELT CLAMPS
Federal Supply Company

BIT STEEL
Andrews Steel Co.
Central Steel Co.
Ludium Steel Co.

BLACK DIAMONDS
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Bridgeport Machine Co.
The Brownell Co.
Continental Supply Company
Coatesville Boiler Works
Frick-Reid Supply Co.
International Supply Co.
The Longhart Supply Company
The National Supply Cos.
Oil Well Supply Co.
Republic Supply Co.
Regan Forge & Engineering Co.
Star Drilling Machine Co.
Titusville Iron Works Co.
United Iron Works, Inc.
See Oil Field Supplies and Tanks

BOILER MOUNTINGS
The Lunkenheimer Co.

BOILER TUBES
Peden Iron & Steel Company
The Tyler Tube & Pipe Co.

BLOWOUT PREVENTER
Baash-Ross Tool Co.
Cameron Iron Works
Regan Forge & Engineering Co.

BURNERS
Continental Supply Company
Gaso Pump & Burner Mfg. Co.
Regan Forge & Engineering Co.
Oknulgee Boiler & Welding Works

BULL WHEELS
International Derrick & Equipment Co.
Lee C. Moore & Co., Inc.
Parkersburg Rig & Reel Co.

CABLE BIT STEEL
Andrews Steel Co.

CALF WHEELS
International Derrick & Equipment Co.
Lee C. Moore & Co., Inc.
Parkersburg Rig & Reel Co.

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R. S. Patrick

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National Tube Co.
Peden Iron & Steel Company
Regan Forge & Engineering Co.
Republic Supply Co.
South Chester Tube Company
Superior Tube Co.

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Bridgeport Machine Co.
Continental Supply Company
The National Supply Cos.
Regan Forge & Engineering Co.
Republic Supply Co.

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CEMENT HARDENER
The Sullivan Co.

CHAIN BLOCKS
Yale & Towne Mfg. Co.

CHARCOAL IRON BOILER TUBES
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Regan Forge & Engineering Co.

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Westcott & Greis

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Allen & Courtney Oil Tool Co.
O. M. Carter
Elliott Core Drilling Co.
H. C. Smith Mfg. Co.
Spengler Core Drilling Co.

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Gardner Governor Co.
Hope Engineering & Supply Co.
Sullivan Machinery Co.
United Iron Works, Inc.

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The Longhart Supply Company
The National Supply Cos.
Republic Supply Co.

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Continental Supply Company
International Derrick & Equipment Co.
Lufkin Foundry & Machine Co.
Oil Well Supply Co.
Parkersburg Rig & Reel Co.

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Harrisburg Pipe & Pipe Bending Company
Superior Tube Company

COCKS, Drain
The Lunkenheimer Company

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Wm. S. Barnickel Company
Petroleum Rectifying Co.

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Lee C. Moore & Co., Inc.
National Turnbuckle Derrick Co.
Parkersburg Rig & Reel Co.
Peden Iron & Steel Co.
Robertson-McDonald Lumber Co.
Superior Tube Company

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Sullivan Machinery Co.

DIAMOND CORE DRILS
R. S. Patrick
Sullivan Machinery Co.

DIAMOND DRILLING CARBON
R. S. Patrick

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McIntosh & Seymour Corp.

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Buckeye Traction Ditcher Co.

DRAW WORKS
Emsco Derrick & Equipment Company
Lufkin Foundry & Machine Co.

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American Cable Co.
Bridgeport Machine Co.
Continental Supply Co.
Frick-Reid Supply Co.
The National Supply Cos.
Peden Iron & Steel Co.
Regan Forge & Engineering Co.
Republic Supply Co.
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Wickwire Spencer Steel Corp.

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Baash-Ross Tool Co.

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Clark Machine Company
Continental Supply Company
Parkersburg Rig & Reel Co.
Star Drilling Machine Co.

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Continental Supply Company
Federal Supply Co.

DRILL PIPE CUTTING
Baash-Ross Tool Co.
Houston Engineers, Inc.

DRILLING TOOLS
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Baash-Ross Tool Co.
Continental Supply Company

DRILLING, Diamonds for
R. S. Patrick

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Frick-Reid Supply Co.
National Tube Co.
Peden Iron & Steel Company
Republic Supply Co.
Reading Iron Co.
South Chester Tube Company

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Bridgeport Machine Co.
Hercules Supply Co.
Republic Supply Co.
Star Drilling Machine Co.
Superior Tube Co.

DRIVE PIPE
Continental Supply Co.
Republic Supply Co.
Reading Iron Co.
Superior Tube Company

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LeBus Rotary Tool Works
Wilson & Willard Mfg. Co.

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ELECTRIC FURNACE STEEL CASTINGS
Sivyer Steel Casting Co.

ELECTRIC POWER
Eastern Texas Electric Co.

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ENGINES, Diesel
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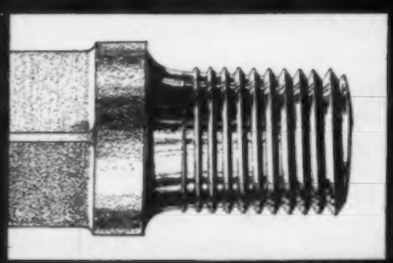
It vanishes!

The thread on the Axelson Sucker Rod *vanishes* as it approaches the shoulder of the pin---providing a deep thread *where needed* and the *greatest pin area* at the *vital* point of strain. By every test *the Axelson vanishing thread excels!* . . . . . .

Axelson Machine Co.
Los Angeles, --- Tulsa, --- New York.



SERVICE STORES AND FACTORY REPRESENTATIVES IN ALL PRINCIPAL OIL FIELDS.

BUYERS' GUIDE—Continued

ENGINES, Gas
Bruce-Macbeth Engine Co.
Climax Engineering Co.
Frick-Reid Supply Co.
Hope Engineering & Supply Co.
Spence Machine Co.
The Pattin Bros. Co.
Waukesha Motor Company
Western Machinery Co.

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Continental Supply Co.
Waukesha Motor Co.

ENGINES, Oil
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The Pattin Bros. Co.
Western Machinery Co.

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Ajax Iron Works
Bessemer Gas Engine Co.
Bridgeport Machine Co.
Climax Engineering Co.
Continental Supply Company
The Brownell Co.
De La Vergne Machine Co.
Franklin Valveless Engine Co.
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Hope Engineering Co.
Lucey Mfg. Corp.
Lufkin Foundry & Machine Co.
The National Supply Cos.
National Transit Pump & Machine Co.
Oil Well Supply Co.
Peden Iron & Steel Co.
Republic Supply Co.
Rock Island Plow Co.
Spence Machine Co.
Southern Engine & Pump Co.
Titusville Iron Works
Waukesha Motor Company
Western Machinery Co.

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D. T. Ring

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Oil Conservation Engineering Co.

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Continental Supply Co.
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Federal Supply Co.
Lucey Mfg. Corp.
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Regan Forge & Engineering Co.

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Metric Metal Works

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Hope Engineering & Supply Co.
Sullivan Machinery Co.

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The Lunkenheimer Company

GAUGE HATCHES
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Oil Conservation Engineering Co.
Westcott & Greis

GAUGES
Oil Conservation Engineering Co.
Metric Metal Works
Westcott & Greis

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Joseph Reid Gas Engines Co.
Waukesha Motor Co.

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GAS LIFT SYSTEM
Jones-McLaughlin Co.

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Smith Separator Co.
Trumble Gas Trap Co.

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Armstrong, Price W.

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Hope Engineering & Supply Co.

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Continental Supply Co.
Peden Iron & Steel Co.

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South Chester Tube Co.

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Spang & Company

JAR STEEL
Andrews Steel Co.

JOINT COLLARS
Federal Supply Co.

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Fort Worth Laboratories

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LEAD WOOL AND CONTAINERS
Eagle Picher Lead Co.

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Westinghouse Elec. & Mfg. Co.

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Peden Iron & Steel Company
Republic Supply Co.
Reading Iron Co.

LITHARGE
Eagle Picher Lead Company

LUMBER
Robertson-McDonald Lumber Co.

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Manzel Bros. Co.

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Metric Metal Works
Westcott & Greis

METERS, Drilling Well
Metric Metal Works

METERS, Orifice
Metric Metal Works

METERS, Provers
Metric Metal Works

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Westinghouse Elec. & Mfg. Co.

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The Cunningham Co.
Federal Supply Company
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Frick-Reid Supply Co.
Erle P. Halliburton
Hercules Supply Co.
International Supply Co.
Jarecki Mfg. Company
Lee C. Moore & Co.
Lucey Mfg. Corp.
The Lunkenheimer Co.
The National Supply Cos.
Oil Well Supply Co.
Peden Iron & Steel Company
Petroleum Iron Works Co., The
Republic Supply Co.
Regan Forge & Engineering Co.
Smith Separator Co.
Southern Brass Mfg. & Plating Company
United Iron Works, Inc.
J. H. Williams & Co.
Wilson & Willard Mfg. Co.

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OIL AND GAS PACKING AND INSULATIONS
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Continental Supply Company
Frick-Reid Supply Company
Republic Supply Company

OIL WELL CEMENTING
Erle P. Halliburton
Oklahoma Portland Cement Co.

OIL WELL REAMERS
Jones Oil Well Reamer Co.

OIL WELL SHOOTING
Eastern Torpedo Company
U. S. Torpedo Co.
Zero Hour Torpedo Co.

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Continental Supply Co.
LeBus Rotary Tool Works
Regan Forge & Engineering Co.

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Larkin & Co.
Layne & Bowler
Regan Forge & Engineering Co.

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Frick-Reid Supply Co.
The National Supply Cos.
Peden Iron & Steel Co.
Republic Supply Co.

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Peden Iron & Steel Co.
Sullivan Company
Tnemec Paint & Oil Co.

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General Electric Co.
Westinghouse Elec. & Mfg. Co.

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Lancaster & Allwine
Jesse R. Stone

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Continental Supply Company
Frick-Reid Supply Co.
Harrisburg Pipe & Pipe Bending Co.
Hercules Supply Co.
International Supply Co.
National Tube Co.
The National Supply Cos.
Oil Well Supply Co.
Peden Iron & Steel Company
Reading Iron Co.
Republic Supply Co.
South Chester Tube Company
Youngstown Sheet & Tube Co.
Wilson & Willard Mfg. Co.

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W-K-M Company

PIPE SCREWING MACHINES
Buckeye Traction Ditcher Co.

PIPE THREADING MACHINES
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Landis Machine Co.
Williams Tool Corporation

PIPE VISES
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PIPE WRENCHES
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LeBus Rotary Tool Works
Republic Supply Co.
J. H. Williams & Co.
Wickwire Spencer Steel Corp.

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International Derrick & Equipment Co.

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Continental Supply Company
Lee C. Moore & Co., Inc.
Parkersburg Rig & Reel Co.
Star Drilling Machine Co.
The National Supply Cos.
Waukesha Motor Company

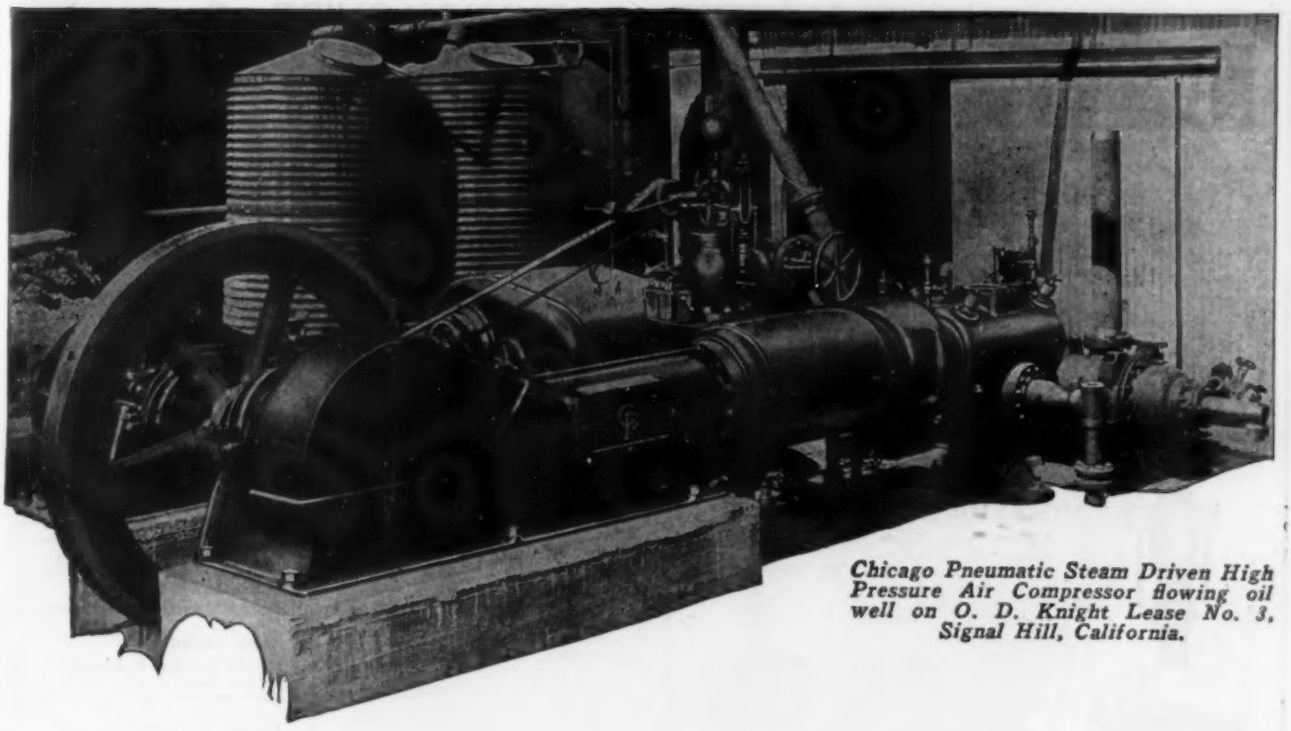
PORTABLE COMPRESSORS
Sullivan Machinery Co.

PROVERS
Metric Metal Works

PULLEYS
Continental Supply Company
International Derrick & Equipment Co.
Lee C. Moore & Co., Inc.

PULLING MACHINES
Clark Machine Co.
Continental Supply Company
Iron King Mfg. Co.

PUMPS
Axelson Machine Co.
Continental Supply Co.
D & B Pump & Supply Co.
C. C. Fetty
Frick-Reid Supply Co.
Gardner Governor Co.
Gaso Pump & Burner Mfg. Co.
Goulds Manufacturing Co.
Jarecki Manufacturing Co.



Chicago Pneumatic Steam Driven High Pressure Air Compressor flowing oil well on O. D. Knight Lease No. 3, Signal Hill, California.

Increase Your Flow With CP Compressors

IT is not unusual to increase the flow of oil wells from 50 to 300% by introducing high pressure air or dry gas into the well. When dry gas is used, it returns from the well with an appreciable absorption of gasoline, frequently as high as seven pints per thousand cu. ft.—in addition to the increase in the flow of oil.

Chicago Pneumatic (CP) High Pressure Air Compressors are successfully performing this service without interruption. The CP Compressor illustrated is in 24-hour per day service where it has increased daily production from 200 to 300%.

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C-205

Chicago Pneumatic Tool Company

Sales and Service Branches all over the World

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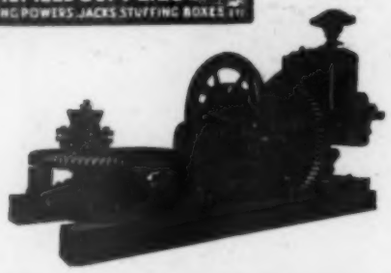
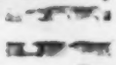
PUMPING POWERS, JACKS, STUFFING BOXES ETC.



PUMPING POWERS
Geared and Band Wheel
Stocks for Quick Delivery



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Tulsa, Okla.,
B. V. Emery & Co.
Casper, Wyo.,
General Engineering Company
Bradford, Pa.,
Combination Eng. & Com. Co.
All Republic Supply Stores.
Houston, Texas,
Harry B. Shine.
Putnam. Texas,
Putnam Supply Co.
All International Supply Co. Stores

Kansas City Hay Press Co.
KANSAS CITY, MO.

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Aetna

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The Result of Untiring Precision

The absolute accuracy—unfailing efficiency—and long life of Aetna Thrust Ball Bearings are the direct result of untiring close precision methods and the most rigid inspection during each process of manufacturing and assembling.

The slightest deviation from Aetna standards is detected in the final inspection department by instruments which gauge one thousandth part of an inch.

Write Today for Our Engineer's Catalog

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2745 High Street, Chicago, Illinois

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Peden Iron & Steel Company
Republic Supply Co.
Southern Engine & Pump Co.
United Iron Works Inc,
Waukesha Motor Co.

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McIntosh & Seymour Corp.

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Northrup Equipment Company
Shaffer Specialty Co.

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Continental Supply Company
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Frick-Reid Supply Co.
International Supply Co.
Jarecki Mfg. Co.
Jensen Bros. Mfg. Co.
Kansas City Hay Press Mfg. Co.
Spence Machine Co.

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Westcott & Greis

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Humble Oil & Refining Co.
Magnolia Petroleum Co.
Sinclair Refining Co.
The Texas Co.

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Fort Worth Laboratories

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Republic Supply Co.
Smith Separator Co.
Titusville Iron Works
United Iron Works, Inc.
Westcott & Greis
Wyatt Metal & Boiler Works

REVERSE GEARS
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Oil Well Supply Co.
Parkersburg Rig & Reel Co.
Republic Supply Co.

ROTARY MACHINES
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Johns-Manville, Inc.

ROPE SOCKET METAL
Eagle Picher Lead Co.

ROTARIES
International Supply Company

ROTARY BIT STEEL
Andrews Steel Co.

ROTARY FISH TAIL BITS
Continental Supply Company
Multi-Cutr Rotary Bit Co.
Pelican Well Tool & Supply Co.
Regan Forge & Engineering Co.
Republic Supply Co.

ROTARY ROCK BITS
Hughes Tool Co.
Reed Roller Bit Co.

ROTARY TOOLS
Federal Supply Company

SAFETY CASING CLAMPS
Shaffer Specialty Company

SAND PUMPS
Larkin & Co.

SAND REEL SUPPORTS
Shaffer Specialty Co.

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M & V Tank Co.
Smith Separator Co.
Trumble Gas Trap Co.

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Simplex Equipment Co.

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Central Steel Co.
Ludlum Steel Co.

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Emsco Derrick & Equipment Co.
McIntosh & Seymour Corp.

STEEL CALF WHEELS
Emsco Derrick & Equipment Co.

STEEL DERRICKS
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Emsco Steel Products Co.
International Derrick & Equipment Co.
Lee C. Moore & Co., Inc.
Parkersburg Rig & Reel Co.

STEEL CROWN BLOCKS
International Derrick & Equipment Co.
Lee C. Moore & Co., Inc.
Parkersburg Rig & Reel Co.

STEEL STORAGE TANKS
Butler Mfg. Co.
Petroleum Iron Works Co., The

STRAINERS
Emsco Steel Products Co.
Howard Smith Company
Kobe, Inc.
Layne & Bowler Co.,
J. H. McEvoy & Co.

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Central Steel Co.

STRUCTURAL STEEL
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United Iron Works, Inc.

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Continental Supply Company

SUCKER ROD ELEVATORS
The Cunningham Co.
Axelson Machine Co.

SUCKER ROD HANGERS
Lorraine Corp.

SUCKER ROD HOOKS
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SUCKER ROD ROTORS
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Brown Welding & Machine Co.
Continental Supply Company
The Cunningham Co.
Federal Supply Company
Shaffer Specialty Co.
Western Supply Co.

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Axelson Machine Co.
Continental Supply Company
Columbus Sucker Rod Co.
D & B Pump & Supply Co.
Dunn Mfg. Co.
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The National Supply Co.
Kansas City Bolt & Nut Co.
Oil Well Supply Co.
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Republic Supply Co.

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Field Experts
In every
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Process Patented

A wire to us will bring our nearest field expert to see you, tomorrow, or possibly even today, without obligation.

He will run tests to show you what TRET-O-LITE will do, will recommend the type of installation suited to your conditions, will superintend its construction (no doubt from materials already on your lease), will instruct one of your men in its operation.

TRET-O-LITE recovers ALL the oil from either fresh emulsion or tank bottoms, at minimum cost. That's why it is rapidly becoming the universal method.

WM. S. BARNICKEL & COMPANY
ST. LOUIS, MO.
Offices and Plant: Webster Groves, St. Louis County, Mo.

Tret-O-lite
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for bad water conditions—

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For long tube life.

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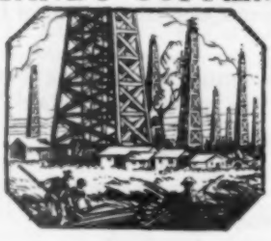
Texas Stock—Harrisburg Pipe and Pipe Bending Co.
Houston, Texas

ASCO
STEEL
STANDS SUPREME



Every step in the production of Asco Steel is watched closely. From the selection of the raw materials to the finished product, the first thought always is to produce a steel that will give the best results to the makers of Oil Well Tools. Can we help you to produce better tools?

THE ANDREWS STEEL CO
NEWPORT KENTUCKY

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Shaffer Specialty Co.
Simplex Equipment Company

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General Machine Works
Westcott & Greis

TANKS
Butler Mfg. Co.
The Brownell Co.
Maloney Tank Co.
M & V Tank Co.
Petroleum Iron Works Co., The
United Iron Works
Wyatt Metal & Boiler Works

TANK DEADWOOD
Robertson-McDonald Lbr. Co.

TANK EQUIPMENT
Westcott & Greis

TEMPER SCREWS
Burns Tool Co.

THERMOMETERS
Fort Worth Laboratories

TIMBERS
Robertson-McDonald Lbr. Co.

TONGS
Bridgeport Machine Co.
Continental Supply Company
Dunn Mfg. Co.
Guiberson Corporation
Howard Smith Company
LeBus Rotary Tool Works
J. H. Williams & Co.
Wilson & Willard Mfg. Co.

TOOL JOINTS
Baash-Ross Tool Co.
Bridgeport Machine Co.
Continental Supply Company
Emsco Steel Products Co.
Hughes Tool Co.
Peden Iron & Steel Company
Regan Forge & Engineering Co.
Republic Supply Co.

TOOLS, Fishing and Drilling
Acme Fishing Tool Co.
Bridgeport Machine Co.
Brown Welding & Machine Co.
Continental Supply Company
Frick-Reid Supply Co.
Houston Engineers, Inc.
Hughes Tool Co.
International Supply Co.
Oil Well Supply Co.
Peden Iron & Steel Co.
Regan Forge & Engineering Co.
Republic Supply Co.
Spang & Co.
Star Drilling Machine Co.
Sullivan Machinery Co.

TOOTHLESS SLIPS
LeBus Rotary Tool Works

TRACTOR WINCH
C. F. Camp Co.
Rock Island Plow Co.

TRAVELING BLOCKS
Baash-Ross Tool Co.
Continental Supply Company
Lufkin Foundry & Machine Co.
Regan Forge & Engineering Co.

TRET-O-LITE
W. S. Barnickel & Co.

TRUCKS
Wichita Falls Motor Co.

TUBING CATCHER
Dunn Mfg. Co.
Guiberson Corporation

TUBING LINES
Continental Supply Company

TUBING PROTECTORS
Mexia Planing Mill Co.

TUBING
Continental Supply Company
Central Tube Co.
National Tube Co.
Republic Supply Co.
Reading Iron Co.
South Chester Tube Company

UNDERREAMERS
Bridgeport Machine Co.
Wilson & Willard Mfg. Co.

UNDERREAMER BIT STEEL
Andrews Steel Co.

UNDERREAMER CUTTER STEEL
Andrews Steel Co.

VACUUM PUMPS
Sullivan Machinery Co.

VALVES
Continental Supply Company
Darling Valve & Mfg. Co.
The Charles N. Hough Mfg. Co.
Ludlow Valve Mfg. Co.
The Lunkenheimer Company
Metric Metal Works
Norris Bros.
Northrup Equipment Company
Smith Separator Co.
Southern Brass Mfg. & Plating Company
Peden Iron & Steel Company
Westcott Valve Mfg. Co.

VALVES, Gate
The Lunkenheimer Company

VALVES AND FITTINGS
Continental Supply Company
Darling Valve & Mfg. Co.
D & B Pump & Supply Co.
Hercules Supply Co.
Jarecki Mfg. Co.
Kerotest Mfg. Company
Ludlow Valve Mfg. Co.
Lufkin Foundry & Machine Co.
The Lunkenheimer Company
The National Supply Cos.
Peden Iron & Steel Company
Republic Supply Co.
United Iron Works

VENTS
Westcott & Greis
Oil Conservation Engineering Co.

WALKING BEAMS
International Derrick & Equipment Co.
Lee C. Moore & Co., Inc.

WELL SHOOTERS
Eastern Torpedo of Ohio Co.

WORKING BARRELS
Axelson Machine Co.
Continental Supply Co.
D & B Pump & Supply Co.
Howard Smith Company
Northrup Equipment Company
Peden Iron & Steel Company
Republic Supply Co.
The Charles N. Hough Mfg. Co.
Southern Brass Mfg. & Plating Company

WATER GAUGES
Metric Metal Works
J. E. Shaffer Company
Smith Separator Co.

WATER CANS
H. P. Gott Mfg. Co.

WATER SOFTENING COMPOUNDS
Ward Chemical Co.

WIRE ROPE
American Cable Co.
Bridgeport Machine Co.
Continental Supply Company
Hercules Supply Co.
International Supply Co.
The Longhart Supply Company
Peden Iron & Steel Company
Regan Forge & Engineering Co.
Republic Supply Co.
The National Supply Cos.
Wickwire Spencer Steel Corp.
Williamsport Wire Rope Co.

WIRE ROPE FITTINGS
American Cable Co.

WIRE ROPE SLINGS
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All-Steel Rotary

for Drilling and Making up Pipe

- ¶ Built entirely of steel electrically annealed.
- ¶ Timken Roller Bearing for drive shaft with Alemite Oiling system.
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- ¶ Flat Top Table—No projections to interfere with handling of tools.
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- ¶ All moving parts run in a bath of oil—No foreign matter can enter.
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- ¶ Constructed of few parts.
- ¶ Simple to change from a drilling machine to a machine for making up pipe.
- ¶ Base is made in one solid piece.
- ¶ Made in 20″ and 28″ sizes.
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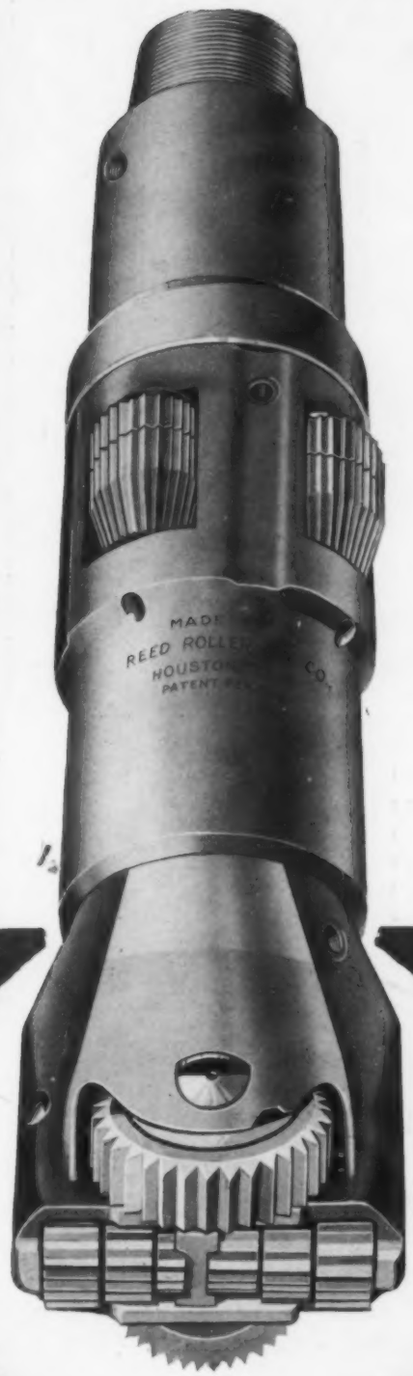

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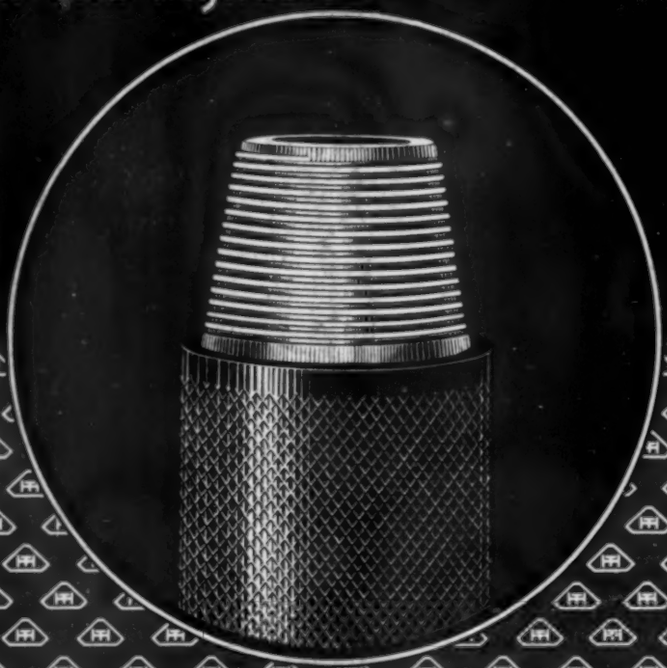

Hughes Tool Company